



STATE OF IOWA  
MASTER AGREEMENT

MA# 005 CT2562M 1

EFFECTIVE BEGIN DATE: 01-01-2006  
EXPIRATION DATE: 12-31-2006  
PAGE: 1 of 4

BUYER : JEANETTE CHUPP  
Jeanette.Chupp@iowa.gov  
515-281-6288

FOB FOB Dest, Freight Prepaid

PAYMENT TERMS (%): DAYS:

**VENDOR:**

Medtronic Physio-Control  
11811 Willows Rd NE  
PO Box 97023  
Redmond, WA 98073  
USA

**VENDOR CONTACT:**

No Contact Specified

PHONE: 515 999-9999

EXT:

EMAIL:

VENDOR #: 91069769100

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**DESCRIPTION OF ITEMS CONTRACTED**

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Defibrillators (AED's) per NASPO Contract SW60300.

Medtronic Physi-Control Brand, Automatic External Defibrillator (AED) Packages and Accessories per NASPO/Oklahoma Contract SW60300 and Meditronic Contract #752.

Ordering Toll Free Phone 800-442-1142 or FAX 800-732-0956

Phil Krohn, Iowa Sales Representative at phone 402-740-2000 or e-mail: phil.krohn@medtronic.com

Oklahoma Sales Rep. Todd Shire at phone 800-442-1142 ext. 72205 or e-mail: todd.shire@medtronic.com

Stephanie Bender, Contract Administrator at phone 800-442-1142 ext. 74170 or e-mail: stephanie.bender@medtronic.com

Products include Lifepak Express, Lifepak CR Plus, Lifepak 500, Lifepak 500 DPS, Lifepak 12 and Lifepak 20 Automated Defibrillator/Monitor Packages and Data Transfer System Software Products (data transfer system).

**CONTRACT TERMS:**

Pricing is Net per October 2005 Price List (copy attached).

Minimum Order: Standard Manufacturer's Package

Payment Terms: Net 30 days

FOB: Destination

Delivery: 30 days ARO

Web-Site: www.Medtronic.com

**RENEWAL PERIODS**

FROM 01-01-2007 TO 12-31-2010

**THRESHOLDS**

MINIMUM ORDER AMOUNT:

MAXIMUM ORDER AMOUNT:

NOT TO EXCEED AMOUNT:

**AUTHORIZED DEPARTMENT**

ALL

**TOTAL \$0.00**

VENDOR:

\_\_\_\_\_

APPROVED BY:

\_\_\_\_\_

THIS MA IS SUBJECT TO THE TERMS AND  
CONDITIONS ATTACHED HERETO.  
PLEASE SEE ATTACHMENTS FOR  
FURTHER DESCRIPTIONS.



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LINE NO.	QUANTITY / SERVICE DATES	UNIT	COMMODITY / DESCRIPTION	UNIT COST / PRICE OF SERVICE
1	0.00000		4651420	\$0.000000
			DEFIBRILLATOR/MONITOR, AC OR DC POWER SOURCE	\$0.000000
			.	
2	0.00000		4651455	\$0.000000
			PARTS AND ACCESSORIES, DEFIBRILLATOR	\$0.000000
			.	
			.	



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## **TERMS AND CONDITIONS**

### **Incorporation**

The Request for Proposal and/or bid documents for this project and the vendor's proposal in response to the RFP or Bid together with any clarifications, attachments, appendices, or amendments of the State or the Vendor are incorporated into this Contract by reference as if fully set forth in this Contract.

### **Remedies upon Default**

In any case where the vendor has failed to deliver or has delivered non-conforming goods and/or services, the State shall provide a cure notice. The notice to cure shall state the maximum length of time the vendor has to cure. If after the time period stated in the notice to cure has passed, the vendor continues to be in default, the State may procure goods and/or services in substitution from another source and charge the difference between the contracted price and the market price to the defaulting vendor. The State's Attorney General shall be requested to make collection from the defaulting vendor.

### **Force Majeure**

Force majeure includes acts of God, war, civil disturbance and any other causes which are beyond the control and anticipation of the party affected and which, by the exercise of reasonable diligence, the party was unable to anticipate or prevent. These provisions of force majeure also apply to subcontractors or suppliers of the Vendor. Force majeure does not include financial difficulties of the Vendor or any associated company of the Vendor, or claims or court orders that restrict the Vendor's ability to deliver the goods or services contemplated by this Agreement. Neither the Vendor nor the State shall be liable to the other for any delay or failure of performance of this Agreement caused by a force majeure, and not as a result of the fault or negligence of a party.

### **Subcontractors**

The successful vendor shall be responsible for all acts and performance of any subcontractor or secondary supplier that the successful vendor may engage for the completion of any contract with the State. A delay that results from a subcontractor's conduct, negligence or failure to perform shall not exempt the vendor from default remedies. The successful vendor shall be responsible for payment to all subcontractors and all other third parties.

### **Termination-Non-Appropriation**

Notwithstanding any other provision of this contract, if funds anticipated for the continued fulfillment of this contract are at any time not forthcoming or insufficient, either through the failure of the State to appropriate funds, discontinuance or material alteration of the program for which funds were provided, then the State shall have the right to terminate this contract without penalty by giving not less than thirty (30) days written notice documenting the lack of funding, discontinuance or program alteration.

### **Immunity of State/Fed Agencies**

The vendor shall defend and hold harmless the State and Federal funding source for the State of Iowa from liability arising from the vendor's performance of this contract and the vendor's activities with subcontracted and all other third parties.

### **Assignment**

Vendors may not assign contracts or purchase orders to any party (including financial institutions) without written permission of the General Services Enterprise - Purchasing.

### **Anti-Trust Assignment**

For good cause and as consideration for executing this purchase order, the vendor, through its duly authorized agent, conveys, sells, assigns, and transfers to the State of Iowa all rights, title and interest in and to all causes of action it may now or hereafter acquire under the anti-trust laws of the United States and the State of Iowa, relating to the particular goods or services purchased or acquired by the State of Iowa pursuant to the using State of Iowa agency.

### **Delivery and Acceptance**

When an award has been made to a vendor and the purchase order issued, deliveries are to be made in the following manner.

A. Deliveries - All deliveries are to be made only to the point specified on the purchase order. If delivery is made to any other point, it shall be the responsibility of the vendor to promptly reship to the correct location. Failure to deliver procured goods on time may result in cancellation of an order or termination of a contract at the option of the State.

B. Delivery Charges - All delivery charges should be to the account of the vendor whenever possible. If not, all delivery charges should be prepaid by vendor and added to the invoice.

C. Notice of Rejection - The nature of any rejections of a shipment, based on apparent deficiencies disclosed by ordinary methods of inspection, will be given by the receiving agency to the vendor and carrier within a reasonable time after delivery of the item, with a copy of this notice to the General Services Enterprise - Purchasing. Notice of latent deficiencies which would make items unsatisfactory for the purpose intended may be given by the State of Iowa at any time after acceptance.

### **Delivery and Acceptance (cont)**

D. Disposition of Rejected item - The vendor must remove at the vendor's expense any item rejected by the State. If the vendor fails to remove that rejected item, the State may dispose of the item by offering the same for sale, deduct any accrued expense and remit the balance to the vendor.

E. Testing After Delivery - Laboratory analysis of an item or other means of testing may be required after delivery. In such cases, vendors will be notified in writing that a special test is being made and that payment will be withheld until completion of the testing process.

### **Title to Goods**

The vendor warrants that the goods purchased hereunder are free from all liens, claims or encumbrances.

### **Indemnification**

To the extent that goods are not manufactured in accordance with the State's design, the vendor shall defend, indemnify and hold harmless the State of Iowa, the State's assignees, and other users of the goods from and against any claim of infringement of any Letter Patent, Trade Names, Trademark, Copyright or Trade Secrets by reason of sale or use of any articles purchased hereunder. The State shall promptly notify the vendor of any such claim.

### **Nondiscrimination**

The vendor is subject to and must comply with all federal and state requirements concerning fair employment and will not discriminate between or among them by reason of race, color, religion, sex, national origin or physical handicap.

### **Warranty**

The vendor expressly warrants that all goods supplied shall be merchantable in accordance with the Uniform Commercial Code, Section 2-314 and the Iowa Code, Section 554.2314.

### **Taxes**



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The State of Iowa is exempt from the payment of Iowa sales tax, motor vehicle fuel tax and any other Iowa tax that may be applied to a specified commodity and/or service. Contractors performing construction activities are required to pay state sales tax on the cost of materials. The Iowa Department of Revenue exemption letter will be furnished to a vendor upon request.

**Hazardous Material**

All packaging, transportation, and handling of hazardous materials shall be in accordance with applicable federal and state regulations including, but not limited to, the Material Safety Data Sheet provision of O.S.H.A. Hazard Communication Standard 29CFR 1910.1200, and Iowa Administrative Code, Chapter 567.

**Public Records**

The laws of the State of Iowa require procurement records to be made public unless exempted by the Code of Iowa.

**Miscellaneous**

The terms and provisions of this contract shall be construed in accordance with the laws of the State of Iowa. Any and all litigation or actions commenced in connection with this contract shall be brought in Des Moines, Iowa, in Polk County District Court for the State of Iowa. If however, jurisdiction is not proper in Polk County District Court, the action shall only be brought in the United States District Court for the Southern District of Iowa, Central Division, providing that jurisdiction is proper in that forum. This provision shall not be construed as waiving any immunity to suit or liability, which may be available to the State of Iowa.

If any provision of this contract is held to be invalid or unenforceable, the remainder shall be valid and enforceable.

**Records Retention**

The vendor shall maintain books, records, and documents which sufficiently and properly document and calculate all charges billed to the State of Iowa throughout the term of this Agreement for a period of at least five (5) years following the date of final payment or completion of any required audit, whichever is later. The vendor shall at, no charge, permit the Auditor of the State of Iowa, or any authorized representative of the State (or where federal funds are involved, the Comptroller General of the United States or any other authorized representative of the United States government) to access and examine, audit, excerpt and transcribe any directly pertinent books, documents, papers, electronic or optically stored and created records, or other records of the vendor relating to orders, invoices, or payments documentation or materials pertaining to this Agreement.

**Independent Contractor**

The vendor is an independent contractor performing services for the State of Iowa, and as such shall not hold itself out as an employee or agent of the State.

**Performance Monitoring**

For all service contracts, the requirements of Iowa Code sections 8.47 shall be incorporated into final terms and conditions of the contract.

**PARTICIPATING ADDENDUM**  
**NASPO/Oklahoma AED Contract**  
**Contract SW 60300**

**State of Iowa, Contract CT2562M**

**Medtronic Physio-Control #752**

**1. Participating Jurisdiction:**

State of Iowa, Department of Administrative Services (DAS), General Services Enterprise, Purchasing Section, 1305 East Walnut Street, Hoover State Office Building, Des Moines, Iowa, 50319-0105.

Within the State of Iowa, all state agencies, facilities and political sub-divisions (cities, counties, school districts and universities) or any entity funded in full or in part by tax dollars, are eligible purchasers and authorized to purchase products and services under the terms of this agreement.

**2. Changes:**

**A.)** The Contractor shall provide a semi-annual electronic report on all sales made against this agreement with the State of Iowa to the State's primary contact listed below. The report at a minimum shall include the order date, State order number, customer name, product description/number, quantity, order total price and the semi-annual grand-total price.

**B.)** Contractor's stated pricing shall be the prices approved and agreed to with the State of Oklahoma (NASPO)...

Contract Title: Automated External Defibrillators (AED's)

Contract Number: SW60300

Contractor: Medtronic Physio-Control ... Contract C#752

**C.)** The Contractor's stated pricing shall be the maximum purchase price. The Contractor may offer, within written quotations, a lower price for volume purchases or for competitive reasons.

**3. Lease Agreements:** Equipment Lease is not available.

**4. Primary Government Contact:**

Jeanette Chupp, C.P.M., Purchasing Agent III

Iowa Dept. of Administrative Services

General Services Enterprise – Purchasing

1305 East Walnut Street, Hoover State Office Building – Level A

Des Moines, Iowa 50319-0105

Phone: 515-281-6288 or FAX 515-242-5974

E-Mail: [Jeanette.Chupp@iowa.gov](mailto:Jeanette.Chupp@iowa.gov)

**Primary Contractor Contact:**

Contract Administrator: Stephanie Bender

Ph. 800-442-1142 #74170 or e-mail: [Stephanie.Bender@medtronic.com](mailto:Stephanie.Bender@medtronic.com)

Iowa Sales Representative: Phil Krohn

Ph. 402-740-2000 or e-mail address [phil.krohn@medtronic.com](mailto:phil.krohn@medtronic.com)

P.O. Box 97023, Redmond, WA 98073

5. Subcontractors: Subcontractors are not authorized under this agreement.  
The State of Iowa does not compensate subcontractors.

This Addendum and the NASPO Price Agreement together with its exhibits, set forth the entire agreement between the parties with respect to the subject matter of all previous communications, representations or agreements, whether oral or written, with respect to the subject matter hereof. Terms and conditions inconsistent with, contrary or in addition to the terms and conditions of this Addendum and the NASPO Price Agreement, together with its exhibits, shall not be added to or incorporated into this Addendum or the Price Agreement and its exhibits, by any subsequent purchase order or otherwise, and any such attempts to add or incorporate such terms and conditions are hereby rejected. The terms and conditions of this Addendum and the NASPO Price Agreement and its exhibits shall prevail and govern in the case of any such inconsistent or additional terms.

IN WITNESS WHEREOF, the parties have executed this Addendum as of the date of execution by both parties below.

State of Iowa

By: Debbie O'Leary

Name: Debbie O'Leary

Title: Administrator, DAS GSE

Date: 2/2/06

Medtronic Physio-Control

By: Stephanie Bender

Name: Stephanie Bender

Title: Contract Administrator

Date: 2/10/06

Jeanette Chapp, Feb. 2, 2006



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BUYER : JEANETTE CHUPP  
Jeanette.Chupp@iowa.gov  
515-281-6288

FOB FOB Dest, Freight Prepaid

PAYMENT TERMS (%): DAYS:

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Medtronic Physio-Control  
11811 Willows Rd NE  
PO Box 97023  
Redmond, WA 98073  
USA

**VENDOR CONTACT:**

No Contact Specified  
PHONE: 515 999-9999 EXT:  
EMAIL:  
VENDOR #: 91069769100

**DESCRIPTION OF ITEMS CONTRACTED**

Defibrillators (AED's) per NASPO Contract SW60300.

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Ordering Toll Free Phone 800-442-1142 or FAX 800-732-0956

Phil Krohn, Iowa Sales Representative at phone 402-740-2000 or e-mail: phil.krohn@medtronic.com

Oklahoma Sales Rep. Todd Shire at phone 800-442-1142 ext. 72205 or e-mail: todd.shire@medtronic.com

Stephanie Bender, Contract Administrator at phone 800-442-1142 ext. 74170 or e-mail: stephanie.bender@medtronic.com

Products include Lifepak Express, Lifepak CR Plus, Lifepak 500, Lifepak 500 DPS, Lifepak 12 and Lifepak 20 Automated Defibrillator/Monitor Packages and Data Transfer System Software Products (data transfer system).

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**RENEWAL PERIODS**

FROM 01-01-2007 TO 12-31-2010

**THRESHOLDS**

MINIMUM ORDER AMOUNT:

MAXIMUM ORDER AMOUNT:

NOT TO EXCEED AMOUNT:

**AUTHORIZED DEPARTMENT**

ALL

**TOTAL \$0.00**

**VENDOR:**

**APPROVED BY:**

*Phil Krohn Feb 10, 2006*  
*Jeanette Chupp, Feb. 2, 2006*

THIS MA IS SUBJECT TO THE TERMS  
AND CONDITIONS ATTACHED HERETO.  
PLEASE SEE ATTACHMENTS FOR  
FURTHER DESCRIPTIONS.

*Medtronic Price*  
*File ET 2562*

**MEDTRONIC PHYSIO-CONTROL  
EMERGENCY RESPONSE SYSTEMS  
(Lifesaving Made Simple)  
Contract #752**

**Lifepak Express Automated External Defibrillator  
Lifepak CR Plus Automated External Defibrillator  
Lifepak 500 Automated External Defibrillator  
Lifepak 500 DPS Automated External Defibrillator  
Lifepak 12 Automated External Defibrillator/Monitor  
Data Transfer System Software Products – Data Transfer System  
Lifepak 20 Automated Defibrillator/Monitor Package**

**Vendor Representative: Todd Shire**

*72205*

**Phone: 800-442-1142, Ext. ~~2205~~, Ext.**

**Fax: 425-867-4146**

**Pager: 405-660-5493**

**Mobile: 405-919-5493**

**Email: [todd.shire@medtronic.com](mailto:todd.shire@medtronic.com)**

**State of Oklahoma  
(NASPO)**



## **ORDERING INFORMATION**

- 1. Part numbers are listed on the attached Price Lists.**
- 2. No maximum order limitation.**
- 3. No minimum order.**
- 4. Geographic Coverage (Delivery Area): 50 States, District of Columbia and Puerto Rico**
- 5. Discounts: As stated on attached Price Lists. Prices shown herein are Net (discount deducted).**
- 6. Quantity Discount prices shown herein are Net.**
- 7. Accept Government Commercial Credit Card**
- 8. Time of Delivery: 30 Days ARO**
- 9. ORDERING ADDRESS: Medtronic ERS  
P O Box 97023  
Redmond, WA 98073**
- 10. Ordering Toll Free Telephone Number: 800-442-1142**
- 11. Ordering Toll Free Facsimile Number: 800-732-0956**
- 12. Payment Address: 12100 Collections Center Drive  
Chicago, IL 60693  
Attn: Accounts Receivable**
- 13. Location of Service and Distribution Points: Various**
- 14. Electronic Equipment and Supplies Catalog is available.**
- 15. Electronic catalog URL: [www.Medtronic.com](http://www.Medtronic.com)**

### **9.0 Warranty**

**9.1. In addition to the above warranty (as stated in the solicitation) provisions, Medtronic Products are provided subject to an express written warranty. Medtronic equipment is warranted against all defects in parts and workmanship for a period of one year from the date of delivery. Special extended warranty; Lifepak 500 AED, Lifepak CR plus defibrillator, Lifepak 20 defibrillator/monitor – five years, Lifepak 12 products used in clinic and hospital settings (with no use in mobile or other applications outside of a hospital or clinic setting – 5 years); patient cable and stylus, 90 days; all batteries and battery paks – one year. Medtronic will repair or replace any products which prove to be defective during the warranty period, provided the proper use and maintenance procedures are followed as prescribed in the Operating Instructions and Service Manual. Service performed, other than stylus replacements, by other than Medtronic or its authorized agents may, at the discretion of Medtronic, be cause to void this warranty. Medtronic, at its option, will make repairs to the unit on-site or provide a no-charge loan instrument, where practicable. Medtronic shall pay all transportation charges during the first year of the warranty period. To the extent any limitation contained in Medtronic's express written warranty is construed by a court of competent jurisdiction to violate Oklahoma law such limitation of limitation shall be void.**

<b>LIFEPAK EXPRESS automated external defibrillator</b>		
<b>Price List October 2005</b>		
<b>State of Oklahoma</b>		
<b>CATALOG NUMBER</b>	<b>PRODUCT DESCRIPTION</b>	<b>CONTRACT PRICE</b>
80427-000002	LIFEPAK EXPRESS Defibrillator Semiautomatic operationAHA voice prompt: Check for breathingEnergy: 200-300-360J	1,395.00
<b>CATALOG NUMBER</b>	<b>DEVICE ACCESSORIES</b>	<b>CONTRACT PRICE</b>
11403-000002	Replacement Kit for CHARGE-PAK charging unit and QUIK-PAK pacing/defibrillation/ECG electrodes. Includes 1 set of electrodes and 1 CHARGE-PAK charging unit.	72.00
11403-000001	Replacement Kit for CHARGE-PAK charging unit and QUIK-PAK pacing/defibrillation/ECG electrodes. Includes 2 sets of electrodes and 1 CHARGE-PAK charging unit.	85.00
21300-004576	Carrying Case	53.10
11260-000015	Hard-shell, water tight carrying case	189.00
21300-004577	Device Cover	17.10
40998-000110	Ambu® Res-Cue Mask™ First Responder Kit Includes two sets of disposable vinyl gloves, a reusable mouth barrier mask with valve and filter, a disposable razor, a disposable antimicrobial wipe, and one pair of trauma scissors. Can be attached to LIFEPAK CR Plus handle.	33.30
40998-000109	Ambu Res-Cue Key™ First Responder Kit Includes two sets of disposable vinyl gloves, a disposable CPR barrier, a disposable razor, a disposable antimicrobial wipe, and one pair of trauma scissors. Can be stored in LIFEPAK CR Plus carrying case.	26.10
<b>CATALOG NUMBER</b>	<b>WALL MOUNTS AND WALL CABINETS</b>	<b>CONTRACT PRICE</b>
11210-000010	Wall Bracket	74.70
11998-000292	Semi-recessed wall cabinet. Works with LIFEPAK 500 AED or CR Plus and includes optional CR Plus mounting bracket. Steel finish wall cabinet with white trim. Partially recess (3") trim style.	193.00
11998-000293	Recessed wall cabinet	206.10
11998-000070	Surface mount wall cabinet	178.00
<b>CATALOG NUMBER</b>	<b>AED PLACARDS AND POSTERS</b>	<b>CONTRACT PRICE</b>
26500-001096	Protocol Card/AED Instruction Card Laminated easy reference AED and CPR instruction card. Fits inside the LIFEPAK CR Plus Lid/Cover.	1.80
11250-000003	AED Wall Placard Plastic AED Sign intended to indicate the location of an AED	6.30
<b>CATALOG NUMBER</b>	<b>TRAINERS AND TRAINING ACCESSORIES</b>	<b>CONTRACT PRICE</b>
11250-000031	LIFEPAK CR Plus Training System Includes 1 AED Trainer, remote control and cable, simulated CHARGE-PAK, 5 sets training electrodes, carrying case, shock button cover, Operating Instructions and batteries for the trainer and remote control. Mimics semiautomatic and fully automatic operation.	260.00
<b>Medtronic Emergency Response Systems</b> 11811 Willows Road Northeast Post Office Box 97006 Redmond, WA 98073-9706 USA Telephone: 425.867.4000 Toll Free (USA only): 800.442.1142 Fax: 425.867.4146		



# Medtronic

0465-14-04

## LIFEPAK EXPRESS™

Defibrillator

The entry-level AED from Medtronic, the world leader in medical technology and defibrillation

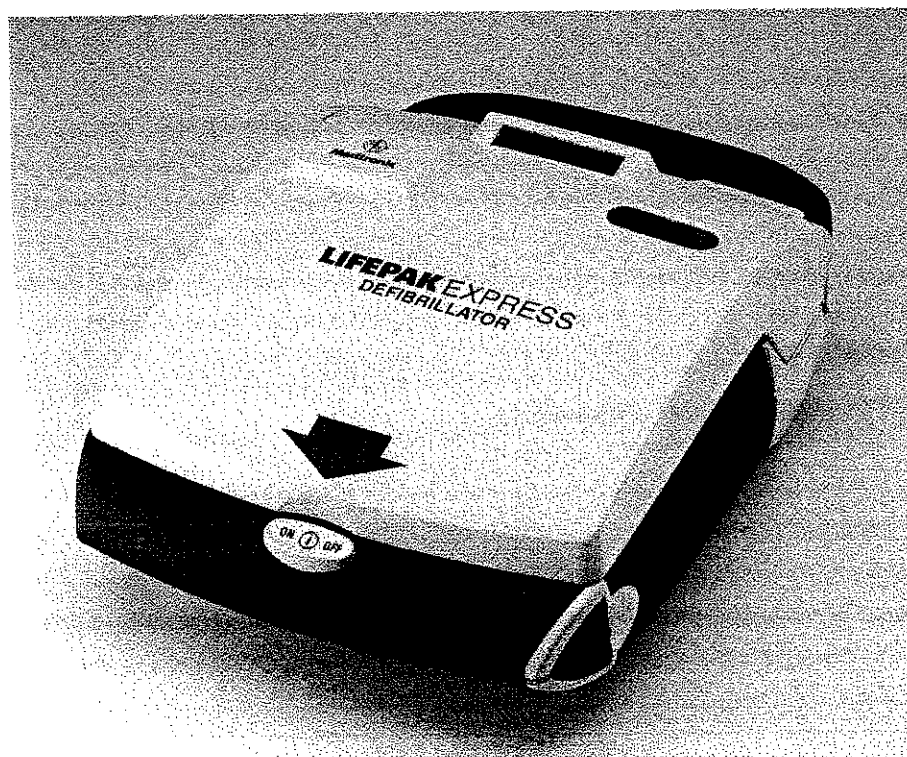
Easy to use, appropriate for those with minimal training

With the advanced technology trusted by more medical professionals

Meets the tough specifications required by emergency medical services (EMS) teams

Unique built-in system helps assure the EXPRESS has full power and is ready for rescue

Synchronized replacement dates for battery charger and electrodes cut maintenance efforts in half



Created especially for the first person at the scene of a sudden cardiac arrest, the LIFEPAK EXPRESS defibrillator is the entry-level automated external defibrillator (AED) from Medtronic.

The EXPRESS is so easy to use, it is suitable for the minimally trained responder. The defibrillator shows and tells the rescuer exactly what to do, one step at a time, making each step obvious. A centrally located, flashing shock button makes it clear what the user should push if the defibrillator determines a shock is needed. In the chaotic conditions surrounding sudden cardiac arrest, the defibrillator's ease of use helps promote quick, effective treatment.

The EXPRESS is compatible with the advanced LIFEPAK defibrillators used by the majority of emergency medical services (EMS) teams, including the industry-leading LIFEPAK 12 defibrillator/monitor, and is built to the tough environmental specifications EMS teams require. ADAPTIV™ biphasic technology automatically

adjusts therapy to each person's needs and escalates from 200 to 360 joules if the heart doesn't respond to previous shocks. This can enhance defibrillation success, with the goal of saving more lives.

The battery system uses an easy-to-change CHARGE-PAK™ battery charger, and replacement dates for the battery charger and electrodes are synchronized, cutting required maintenance efforts in half. A unique built-in system helps ensure the EXPRESS has full power if and when sudden cardiac arrest strikes. Infant/Child Reduced Energy Defibrillation Electrodes make therapy available to even the youngest victims of sudden cardiac arrest; up to eight years old or 25 kg (55 lbs).

Innovative data management tools support compliance with state and local regulations following AED use. Users can wirelessly transmit ECG and event data through an infrared IrDa port to a PC, eliminating the need for data cards.

## DEFIBRILLATOR

**Waveform:** Biphasic truncated exponential, with voltage and current duration compensation for patient impedance.\*

**Output Energy Sequence:** Multiple levels, user configurable from 200J to 360J (150J min. outside the U.S.).

**Output Energy Accuracy:**  $\pm 10\%$  into 50 ohms,  $\pm 15\%$  into 25 to 100 ohms.

**Shock Advisory System™:** An ECG analysis system that advises whether a shock is appropriate; meets rhythm recognition criteria specified in DF39.

The device charges for shock only when the Shock Advisory System advises defibrillation.


**Device Capacity:** Twenty (20) full discharges or 140 minutes of "on time" with a fully charged device.

**Shock Charge Time:** Charge times with a fully charged device: 200 joules in less than 9 seconds, 360 joules in less than 15 seconds.

**System Recharge Times:** Recharge times with a fully discharged device: able to deliver six (6) shocks or provide 42 minutes of operating time after 48 hours of recharge and 20 shocks or 140 minutes of operating time after fourteen (14) days of recharge time with a new CHARGE-PAK battery charger at temperatures above 15°C (59°F).

## Controls

Lid Release/ON-OFF - Controls device power. SHOCK button delivers defibrillation energy.

**Electrical Protection:** Input protected against high voltage defibrillator pulses per IEC60601-1/EN60601-1 

**Safety Classification:** Internally powered equipment. IEC60601-1/EN60601-1.

## USER INTERFACE

**User Interface:** The user interface includes voice prompts, audible tones and graphic prompts.

**Readiness Display:** The readiness display shows the device status.

**OK Indicator:** Shows "OK" when the last self-test was completed successfully. When the "OK" indicator is visible, all other indicators are not visible. The "OK" indicator is not displayed during device operation.

**CHARGE-PAK Indicator:** When displayed, replace the CHARGE-PAK battery charger.

**Attention Indicator:** When first displayed, at least six (6) discharges or 42 minutes of operating time remain.

**Service Indicator:** Service required when displayed.

## ENVIRONMENTAL

**Note:** All performance specifications defined assume the unit has been stored (two hours minimum) at operating temperature prior to operation.

**Operating Temperature:** 0° to +50° C (+32° to +122° F).

**Storage Temperature:** -40° to +70° C (-40° to +158° F) with CHARGE-PAK battery charger and electrodes, maximum exposure time limited to one week.

**Atmospheric Pressure:** 760 mmHg to 429 mmHg, 0 to 15,000 feet above sea level.

**Relative Humidity:** 5 to 95% (non-condensing).

**Water Resistance:** IEC60529/EN60529 IPX4 "Splash proof" with electrodes connected, CHARGE-PAK battery charger installed.

**Shock:** MIL-STD-810E, Method 516.4, Procedure I, (40g, 6-9 ms pulse,  $\gamma$ , sine each axis).

**Vibration:** MIL-STD-810E, Method 514.4, Helicopter - category 6 (3.75 Grms) and Ground Mobile - category 8 (3.15 Grms).

## PHYSICAL CHARACTERISTICS

**Height:** 10.7 cm (4.2 in)

**Width:** 20.3 cm (8.0 in)

**Depth:** 24.1 cm (9.5 in), excluding handle

**Weight:** 2.0 kg (4.5 lb) with CHARGE-PAK battery charger and electrodes.

## SETUP OPTIONS

**Energy Sequence:** Users can choose an energy sequence to match their applicable energy protocol (e.g. 200J, 300J, 360J).

**Motion Detection:** The motion detection system can be set to off or on during analysis.

**Energy Protocol:** The user can configure the defibrillator to increase energy after every shock or only increase it after a lower energy was unsuccessful.

**Turn-On Prompt:** The turn-on prompt option allows the user to select the prompting style upon power on.

**CPR Time:** The CPR Time can be set to match local protocol.

**Pulse Prompt:** The pulse prompt option allows the user to select the voice message for CPR prompting according to the Guidelines 2000, as recommended by the American Heart Association (AHA) and the International Liaison Committee on Resuscitation (ILCOR).

**Device ID:** The device ID feature assigns a unique identifier to a particular device, which is printed on all reports.

## ACCESSORIES

## CHARGE-PAK Battery Charger

Type: Li/SO2Cl2 Lithium Sulfuryl Chloride, 11.7V, 1.4 amp-hours.

**Replacement:** Replace after each patient use, after 30 minutes of accumulated "on" time, or when CHARGE-PAK indicator is visible, typically after two (2) years.

**Weight:** 80.5 grams (0.18 lb)

## QUIK-PAK™ Electrode Pads

**Pads:** ECG is received from disposable defibrillation electrodes, standard placement (anterior-lateral).

**Pads Packaging:** User intuitive, rapid release QUIK-PAK electrodes allow the electrode pads to be preconnected to the device and protected under a top cover.

**Pads Replacement:** Replace every two (2) years.

## Infant/Child Reduced Energy Defibrillation Electrodes

Intended for use with any EXPRESS defibrillator on children up to 8 years of age or 25kg (55 lbs).

## DATA STORAGE

**Memory Type:** internal digital memory.

**ECG Storage:** Dual patient data storage. Minimum 20 minutes of ECG stored for the current patient, summarized data stored for the previous patient.

## Report Types:

• **Continuous ECG** - A continuous patient ECG report.

• **Continuous Summary report** - A summary of critical resuscitation events and ECG waveform segments associated with these events.

• **Event Log report** - A report of time stamped markers, which reflect operator and device activity.

• **Test Log report** - A device self-test activity report.

**Capacity:** Minimum 200 time-stamped event log markers.

**Communications:** Wireless transfer to a personal computer.

**Data Review:** Medtronic provides an array of tools to meet customer needs for data viewing and analysis.

\* The specifications apply from 25 to 200 ohms. Voltage compensation is limited to the voltage that would result in delivery of 360 joules into 50 ohms.

All specifications are at 20°C unless otherwise stated.

AED users should be trained in CPR and use of the AED. Please consult your physician. A prescription is required. For further information please call Medtronic at 1.800.442.1142.



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# STATE OF OKLAHOMA/NASPO CONTRACT PRICING-

## Medtronic Emergency Response Systems LIFEPAK CR Plus

0465-14-06 (To order, list part numbers, descriptions, prices and total under this commodity code)

Lifepack CR Plus Includes 1 pair QUIK-PAK™ pacing/defibrillation/ECG electrodes with REDI-PAK™ preconnect system, 1 CHARGE-PAK™, and 1 protocol card installed in the device. Also includes operating instructions, orientation video, 1 carrying case, 1 spare pair QUIK-PAK pacing/defibrillation/ ECG electrodes, Ambu® Res-Cue Mask™ First Responder kit, AED program implementation starter kit, accessories catalog, and 5-year warranty

CATALOG #	PRODUCT DESCRIPTION Required - Select One of the Following	EACH PRICE	QUANTITY DISCOUNT
80403-000024	LIFEPAK CR Plus Defibrillator <u>Semiautomatic operation</u> AHA voice prompt: Check for breathing. Energy: 200-300-360J	1,695.00	**
80403-000002	LIFEPAK CR Plus Defibrillator <u>Semiautomatic operation</u> AHA voice prompt: Check for pulse Energy: 200-300-360J	1,695.00	**
80403-000110	LIFEPAK CR Plus Defibrillator <u>Semiautomatic operation</u> AHA voice prompt: Check for circulation Energy: 200-300-360J	1,695.00	**
80403-000023	LIFEPAK CR Plus Defibrillator <u>Fully automatic operation</u> AHA voice prompt: Check for breathing Energy: 200-300-360J	1,795.00	**
80403-000025	LIFEPAK CR Plus Defibrillator <u>Fully automatic operation</u> AHA voice prompt: Check for pulse Energy: 200-300-360J	1,795.00	**
80403-000111	LIFEPAK CR Plus Defibrillator <u>Fully automatic operation</u> AHA voice prompt: Check for circulation Energy: 200-300-360J	1,795.00	**
11403-000002	Replacement Kit for CHARGE-PAK Charging unit and Quick-PAK pacing/defibrillation/ECG electrodes. Includes 1 set electrodes and 1 CHARGE-PAK	85.00	**
11403-000001	Replacement Kit for CHARGE-PAK Charging unit and Quick-PAK pacing/defibrillation/ECG electrodes. Includes 2 sets electrodes and 1 CHARGE-PAK	79.20	**
1101-000017	Replacement Infant/Child Reduced Energy Defibrillation Electrodes starter kit (for use only with LP500 Biphasic with pink connector or CR Plus AED's)	125.10	**
1101-000016	Replacement Infant/Child Reduced Energy Defibrillation Electrodes (for use only with LP500 Biphasic with pink connector or CR Plus AED's)	89.10	
21300-004576	CR Plus soft carrying case	59.00	
21300-004579	CR Plus Carrying Case replacement shoulder strap	12.60	
11260-000015	CR Plus Hard-shell, water tight carrying case	189.00	
21300-004346	CR Plus, Replacement Device Lid cover	17.10	
11210-000021	CR Plus, wall bracket	74.70	
40998-000110	CR Plus Ambu Res-Cue Mask First Responder kit-can be attached to CR Plus handle. Includes 2 sets of disposable vinyl gloves, a reusable mouth barrier with valve and filter, disposable razor, disposable antimicrobial wipe, pair of trauma scissors.	33.30	
40998-000109	CR Plus Ambu Res-Cue Mask First Responder kit-can be stored in CR Plus carrying case. Includes 2 sets of disposable vinyl gloves, a reusable mouth barrier with valve and filter, disposable razor, disposable antimicrobial wipe, pair of trauma scissors.	26.10	

*Semi  
Auto*

*Fully  
Auto*

\*\* Please note that for orders over \$100,000, additional discounts will be provided.

265-001096	Protocol Card/AED Instruction Card-fits inside AED lid cover	1.80	
11250-000003	AED Wall Placard- to indicate location of AED	6.30	
26500-001361	CR Plus AED Operating instructions-English	13.50	
26500-001362	CR Plus AED Operating instructions- International/English	13.50	
11998-000292	Semi-recessed Wall Cabinet with Siren works with LP500 or CR Plus	193.00	
11998-00070	Surface Wall mount Cabinet with Siren works with LP500 or CR Plus	178.00	
11998-000293	Fully Recessed Wall Cabinet with Siren works with LP500 or CR Plus	206.10	
11250-00031	CR Plus Training System- Includes AED I trainer, remote control and cable, simulated CHARGE-PAK charging unit, 5 sets training electrodes, carrying case, removable shock button cover, operating instructions, and batteries for the trainer and remote control. Mimics semiautomatic and fully automatic operation.	260.00	
26500-001156	Operating Instructions CR Plus training System	13.50	
11260-000014	Replacement Carrying Case	27.00	
11250-000015	Replacement Training electrodes, set of 5CR Plus	28.80	
<b>Literature and Training Material</b>			
26500-001317	Orientation Video CR Plus AED, VHS Format, NTSC	11.70	
26500-001697	AED Challenge, An interactive computer training tool DEMO DISK	0.00	
26500-001670	AED Challenge An interactive computer-training tool, Version 2.2 on CD-ROM. Runs on Windows 95,98 and above. PC Training tool provides computer-simulated environment for practicing AED skills. Gives realistic practice for students just learning to use an AED and helps experienced AED users keep their skills sharp.	71.10	
26500-001421	Service Manual Lifepak CR Plus AED CD-ROM, Windows 3.1 or Windows 95	56.70	
60998-000001	AED Challenge, Web Enabled. Web-based refresher training tool that simulates cardiac arrest scenarios and use of the LP CAR Plus defibrillator. Enables on line reporting and administration tools. Not a replacement for initial training. Responders must complete CPR/AED classroom training initially. Annual license for individual users required. Price/user/year. Quarterly discounts available.	36.00	
265-001361	LIFEPAK CR Plus Operating Instructions	13.50	
21341-000037	Optional Custom software setting - complete the "Customizing your LIFEPAK CR Plus Defibrillator" worksheet to request alternative settings for the set-up options on your LIFEPAK CR Plus Defibrillator.		
21330-001051	EventCheck POS - SOLD WITH LIFEPAK CR Plus AED, this device management provides Medtronic factory-authorized EventCheck Product Inspection, replacement of 2 sets of QUICL-PAK electrodes and CHARGE-PAK charging unit and download of patient data.	85.50	
21330-001052	EventCheck AS - AFTER CASE Event Check provides Medtronic factory-authorized EventCheck Product Inspection, replacement of 2 sets of QUICL-PAK electrodes and CHARGE-PAK charging unit and download of patient data.	135.00	
21340-000095	LIFENET DT Express 1.0 IMS - A data transfer software application that offers capabilities such as easy downloading, editing, and printing event data from LIFEPAK CR Plus, LIFEPAK 500, LIFEPAK 12 defibrillator/monitor using either a laptop or personal computer. Compatible with Microsoft Windows NT 4.0 service pack 1 or greater, Windows 98, Windows NE, Windows 2000 Professional, and Windows XP.	269.10	

LIFEPAK Heart Safe Solution - for LIFEPAK CR Plus AED (Not including device)		
Price List October 2005		
State of Oklahoma		
CATALOG NUMBER	PRODUCT DESCRIPTION	CONTRACT PRICE
50999-000041	LIFEPAK Heart Safe Solution – for LIFEPAK CR Plus AED (Not including device)	\$1,195.00/1 year
50999-000034	Includes the following services:	\$2,295.00/3 year
50999-000051	SITE ASSESSMENT Medical Prescription, Medical direction and oversight,	\$3,395.00/5 year
	Training for five (5) individuals, AED Challenge On-line Refresher Training,	
	Post-Event Download Services, Post-Event Physician Review Services,	
	Post-Event Supply Replenishment, Expired Supply Replenishment,	
	Post-Event Rescuer Support (HERO Program, Stress Debriefing),	
	Local and/or State Registration including fees as required,	
	24-Hour Clinical Hotline	

21300-005026	IrDA Adapter with USB Port (LIFENET DT Express Required) Infrared wireless data communications cable for personal computer that works hand in hand with LIFENET DT Express 1.0 Information Management System to download event data from LIFEPAK CR Plus Defibrillator. Compatible with Windows NT 4.0 (Service pack 6a required), Windows 98, Windows NE, Windows 2000 Professional, and Windows XP.	99.00	
21300-005027	IrDA Adapter with 9-pin Serial Port (LIFENET DT Express Required) Infrared wireless data communications cable for personal computer that works hand in hand with LIFENET DT Express 1.0 Information Management System to download event data from LIFEPAK CR Plus Defibrillator. Compatible with Windows NT 4.0 (Service pack 6a required), Windows 98, Windows NE, Windows 2000 Professional, and Windows XP.	66.60	
60600-000110	LIFENET DT Plus Data Transfer and Storage Program -- For downloading and storing device data, printing reports and sending data to another location. Download data from the LIFEPAK CR Plus, LIFEPAK 500, LIFEPAK 11, LIFEPAK 12 and LIFEPAK 20 defibrillator/monitors. Add supplemental patient and case data. Store, transfer or print data in a variety of report.	269.10	

<b>LIFEPAK Express AED with extra battery &amp; child electrodes</b>	<b>\$1,395.00</b>
<b>LIFEPAK 20 Defibrillator/Monitor Package</b>	<b>\$7,456.00</b>
<b>LIFEPAK 20 Defibrillator/Monitor with pacing package</b>	<b>\$8,986.00</b>
<b>LIFEPAK 20 Defibrillator/Monitor with Pacing and SP02 package</b>	<b>\$10,606.00</b>
<b>LIFEPAK CR Plus Heart Safe Wrap Around Solution 1 Year</b>	<b>\$1,195.00</b>
<b>LIFEPAK CR Plus Heart Safe Wrap Around Solution 3 Year</b>	<b>\$2,295.00</b>
<b>LIFEPAK CR Plus Heart Safe Wrap Around Solution 5 Year</b>	<b>\$3,395.00</b>





**Medtronic**

0465-14-06

**LIFEPAK CR<sup>Plus</sup>**

Defibrillator

SUDDEN CARDIAC ARREST CAN STRIKE ANYONE, ANYWHERE, ANYTIME.

**LIFEPAK CR<sup>Plus</sup>**  
**DEFIBRILLATOR**

*Lifesaving Made Simple*

# LIFEPAK CR Plus

## DEFIBRILLATOR

As many as 450,000 adults and 7,000 children suddenly lose their lives to sudden cardiac arrest each year.<sup>1,2</sup>



Medtronic created the LIFEPAK CR Plus AED especially for the first person at the scene of a cardiac arrest, when there is the best chance to restart a heart.

### THE SMARTEST CHOICE, FOR PEACE OF MIND

With the LIFEPAK CR Plus AED, you'll have peace of mind knowing you have Medtronic, the world leader in defibrillation, behind you. The LIFEPAK reputation for quality and reliability has earned the trust of the experts in emergency medical care. More hospitals and nine out of the top 10 emergency medical services (EMS) in the U.S. rely on LIFEPAK defibrillators every day to save lives.

### THE EASIEST AED TO USE, FOR FASTER TIME TO FIRST SHOCK

For decades our goal has been to get a lifesaving defibrillation shock to people who need it—sooner—because chances of surviving sudden cardiac arrest are best within the first few minutes of arrest. An AED used quickly and effectively by the first person at the scene can have lifesaving results. Ease of use is vital to delivering the first shock faster.

The LIFEPAK CR Plus AED is the easiest-to-use AED ever developed. Although rescuers should be trained in CPR and AED use, a recent study found that untrained people could deliver a shock faster with the CR Plus than with the other AEDs tested.<sup>3</sup> And an independent expert review of five AEDs on the market rated the CR Plus No. 1 in ease of use and intuitiveness.<sup>4</sup>

The only fully automatic AED available, the CR Plus does everything for you. All you have to do is follow the prompts, apply the preconnected electrode pads and stand back. There is no shock button to push, and the CR Plus is designed to deliver a shock only if it determines the heart needs it. For those who want more control, the semi-automatic CR Plus comes with a shock button.

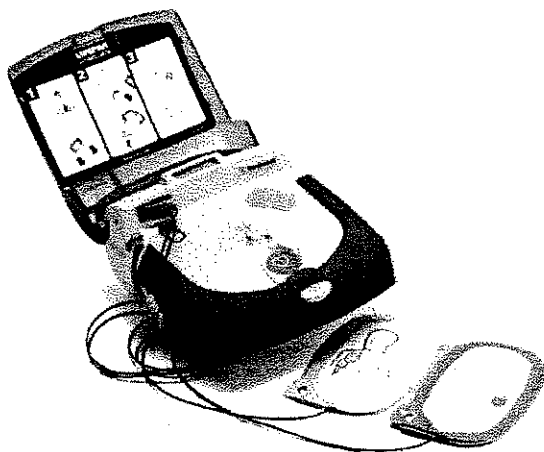
### THE BEST TECHNOLOGY AVAILABLE FOR SAVING MORE LIVES

Packaged in this easy-to-use device, the LIFEPAK CR Plus AED houses the same advanced therapy that more medical professionals trust and use every day. ADAPTIV™ biphasic technology adjusts therapy to each person's unique needs and provides repeat, escalating shocks (200–360 joules) if the heart doesn't respond to previous shocks.

Infant/Child Reduced Energy Defibrillation Electrodes now make it possible for even the youngest victims of sudden cardiac arrest to receive potentially lifesaving defibrillation.

The CR Plus is built to the tough specifications of emergency medical services teams. It can withstand rugged treatment and can travel without injury.

THE SIMPLE-TO-USE LIFEPAK CR PLUS AED HOUSES THE MOST ADVANCED TECHNOLOGY AVAILABLE FOR TREATING SUDDEN CARDIAC ARREST FOR ANYBODY WHO NEEDS IT.



Survival rates drop 7-10 percent every minute without defibrillation.<sup>1</sup>

The American Heart Association recommends defibrillation within 3-5 minutes or sooner for cardiac arrests occurring outside the hospital.<sup>4</sup>

On average, it takes emergency medical services teams 6-12 minutes to arrive.<sup>2</sup>

A national trial revealed the number of survivors from sudden cardiac arrest in public places approximately doubled when trained laypeople used AEDs.<sup>3</sup>



## THE EASIEST AED TO OWN

The LIFEPAK CR Plus AED has a battery system that uses an easy-to-change CHARGE-PAK™ battery charger. You can rest assured because a built-in system ensures the *CR Plus* has full power in the event of a sudden cardiac arrest. Synchronized replacement dates for the battery charger and electrodes cut required maintenance efforts in half.

Built for reliability, with careful engineering up-front, a regular self-test offers additional assurance that your *CR Plus* is rescue ready. The easily visible readiness display tells you at a glance if your device needs service.



The LIFEPAK CR Plus AED shows and tells you what to do one step at a time, using a "layered approach" that makes each step obvious so you can use the AED quickly and effectively.



## ABOUT MEDTRONIC

Founded in 1949, Medtronic is now the world's leading medical technology company. Medtronic provides lifelong solutions for people living with chronic disease. It also offers a wide variety of products and therapies to help physicians solve the most challenging and limiting medical problems, restoring health, extending life and alleviating pain.

## YOUR COMPLETE AED SOLUTION

Starting an AED program is simple, thanks to LIFEPAK Heart Safe Solutions. This turnkey program provides you with everything you need: the LIFEPAK CR Plus AED, medical authorization, training, completion of paperwork, supply replenishment, on-site professional counseling after an event, and help complying with local, state and federal legislation.

The Heart Safe Solutions program can be tailored specifically to your needs. You may purchase it outright or on a monthly payment plan. It's that simple.

LIFEPAK AEDs are prescription devices. AED users should be trained in CPR and use of the AED. Although not everyone can be saved from sudden cardiac arrest, studies show that early defibrillation can dramatically improve survival rates. The LIFEPAK CR Plus AED may be used on children up to eight years old or 25 kg (55 lbs) only with the Infant/Child Reduced Energy Defibrillation Electrodes.

### References

1. Zheng, Z., Croft, J., Giles, W., Mensah, G. 2001. Sudden cardiac death in the United States, 1989-1998. *Circulation*, 104:2158-63.
2. Berger, S., Dhalla, A., Freidberg, D.Z. 1999. Sudden cardiac death in infants, children and adolescents. *Pediatric Clinics of North America*, (46) 2: 221-34.
3. Cummins, R.O. 1989. From concept to standard-of-care? Review of the clinical experience with automated external defibrillators. *Annals of Emergency Medicine* 18: 1269-75.
4. Guidelines 2000 for Cardiovascular Resuscitation and Emergency Cardiovascular Care. 2000. *Circulation* 102 (8) 11-184.
5. Medtronic review of published literature.
6. Ornato, J.P. and The Public Access Trial Investigators. 2003. The Public Access Defibrillation (PAD) Trial (Abstract) *Circulation*, 108:2723.
7. Eames, P., Larsen, P.D., and Galletly, D.C. 2003. Comparison of ease of use of three automated external defibrillators by untrained lay people. *Resuscitation*, 58: 25-30.
8. Human Factors International. Expert review of five commercially available AEDs for intuitiveness and ease of use. May 2003.



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MIS 100231-001 JCT 11 2000 00172

STATE OF OKLAHOMA/NASPO CONTRACT PRICING-CONTRACT #SW50030

Medtronic Emergency Response Systems

MEDTRONIC LIFEPAK® 500

0465-14-05 (To order, list part numbers, descriptions, prices and total under this commodity code)

LIFEPAK® 500 automated external defibrillator, <i>gold color</i> , and ADAPTIV™ biphasic waveform Includes two (2) pair QUIK-COMBO™ pacing/defibrillation/ECG electrodes with REDI-PAK™ pre-connect system, operating instructions, in-service video, non-rechargeable lithium sulfur dioxide battery pak, carrying case. One (1) set of setup instructions included with each order. All items included within device catalog number.				
CATALOG #	PRODUCT DESCRIPTION	PRICE EACH	DISCOUNT PRICING	
	<i>Required – Select one of the following:</i>			
81401-000001	LIFEPAK 500 AED, two-button operation, ADAPTIV biphasic	1,895.00		
81401-000002	LIFEPAK 500 AED, three-button operation, ADAPTIV biphasic	1,895.00		
81401-000003	LIFEPAK 500 AED, two-button operation, ADAPTIV biphasic, voice recording	1,895.00		
81401-000004	LIFEPAK 500 AED, three-button operation, ADAPTIV biphasic, voice recording	1,895.00		
LIFEPAK 500 DPS automated external defibrillator, <i>dark charcoal color</i> , for public safety with new dark charcoal color, English language, ADAPTIV biphasic, improved military environmental specification ratings. Includes two (2) pair QUIK-COMBO pacing/defibrillation/ECG electrodes with REDI-PAK pre-connect system, lithium sulfur dioxide battery pak, Ambu® Res-Cue Mask™ First Responder kit, complete soft shell carrying case with “stealth” non-reflective surface, operating instructions, in-service video. One (1) set of setup instructions included with each order. (Not available in Monophasic.) English only.				
81401-000005	LIFEPAK 500 DPS AED, two-button ADAPTIV biphasic	1,995.00		
81401-000006	LIFEPAK 500 DPS AED, three-button ADAPTIV biphasic	1,995.00		
81401-000007	LIFEPAK 500 DPS AED, two-button ADAPTIV biphasic, voice recording	1,995.00		
81401-000008	LIFEPAK 500 DPS AED, three-button ADAPTIV biphasic, voice recording	1,995.00		
<b>BATTERIES AND BATTERY ACCESSORIES</b>				
11141-000013	LIFEPAK 500 non-rechargeable lithium sulfur dioxide battery pak For use with the LIFEPAK 500 AED	147.00		
11141-000069	LIFEPAK 500 non-rechargeable lithium sulfur dioxide battery pak For use with the LIFEPAK 500 DPS AED. Non-rechargeable battery, charcoal color.	199.00		
11140-000043	LIFEPAK 500 non-rechargeable lithium manganese dioxide battery pak For use with the LIFEPAK 500 AED. Approved for use on aircraft. Meets FAA requirements in TSB C142	297.00		
11141-000030	LIFEPAK 500 non-rechargeable lithium manganese dioxide battery pak For use with the LIFEPAK 500 AED.	297.00		
11141-000002	LIFEPAK 500 rechargeable sealed lead-acid battery pak For use with the LIFEPAK 500 AED.	102.00		
11220-000025	Battery pouch Attaches to side of soft shell carrying case.	42.30		
11140-000002	Battery charger For use with LIFEPAK 500 rechargeable SLA battery pak. Power cord included.	123.00		

0465-14-05-  
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STATE OF OKLAHOMA/NASPO CONTRACT PRICING-CONTRACT #SW50030  
0465-14-05B5 MEDTRONIC PHYSIOCONTROL DEFIBRILLATOR ACCESSORIES

EDGE SYSTEM™ ELECTRODES FOR PACING/DEFIBRILLATION/ECG WITH QUIK-COMBO™ CONNECTORS			
CATALOG #	DESCRIPTION		
11996-000091	EDGE System electrodes with QUIK-COMBO connector	1 to 9 pair	33.30
	EDGE System electrodes with QUIK-COMBO connector	10 to 49 pair	27.90
	EDGE System electrodes with QUIK-COMBO connector	50 or more pair	23.40
11996-000017	EDGE System electrodes with QUIK-COMBO connector and REDI-PAK™ preconnect system	1 to 9 pair	37.80
11996-000017	EDGE System electrodes with QUIK-COMBO connector and REDI-PAK™ preconnect system	10 to 49 pair	33.30
11996-000017	EDGE System electrodes with QUIK-COMBO connector and REDI-PAK™ preconnect system	50 or more pair	27.90
11996-000090	EDGE System RTS (Radiotransparent) electrodes with QUIK-COMBO connector	1 to 9 pair	40.50
11996-000090	EDGE System RTS (Radiotransparent) electrodes with QUIK-COMBO connector	10 to 49 pair	35.10
11996-000090	EDGE System RTS (Radiotransparent) electrodes with QUIK-COMBO connector	50 or more pair	32.40
11101-000017	Infant/Child Reduced Energy Defibrillation Electrode starter kit (for use only with LIFEPAK 500 Biphasic with pink connector or LIFEPAK CR Plus AEDs)	each	125.10
11101-000016	Replacement Infant/Child Reduced Energy Defibrillation Electrodes (for use only with LIFEPAK 500 Biphasic with pink connector or LIFEPAK CR Plus AEDs)	pair	89.10
11996-000093	Pediatric EDGE System RTS electrodes with QUIK-COMBO connector (for use only on manual defibrillator/monitors) (12 month minimum shelf life at time of shipment)	1 to 9 pair	33.30
11996-000093	Pediatric EDGE System RTS electrodes with QUIK-COMBO connector (for use only on manual defibrillator/monitors) (12 month minimum shelf life at time of shipment)	10 to 49 pair	27.90
11996-000093	Pediatric EDGE System RTS electrodes with QUIK-COMBO connector (for use only on manual defibrillator/monitors) (12 month minimum shelf life at time of shipment)	50 or more pair	25.20
OTHER EDGE SYSTEM ELECTRODES FOR PACING/DEFIBRILLATION/ECG (18 month minimum shelf life at time of shipment)			
11996-000092	EDGE System electrodes with FAST-PATCH® PLUS connector (for pacing must be used with QUIK-COMBO to FAST-PATCH cable 11110-000052)	1 to 9 pair	18.90
11996-000092	EDGE System electrodes with FAST-PATCH® PLUS connector (for pacing must be used with QUIK-COMBO to FAST-PATCH cable 11110-000052)	10 to 49 pair	17.10
11996-000092	EDGE System electrodes with FAST-PATCH® PLUS connector (for pacing must be used with QUIK-COMBO to FAST-PATCH cable 11110-000052)	50 or more pair	16.20
OTHER DEFIBRILLATION AND PACING ELECTRODES (12 month minimum shelf life at time of shipment)			
11996-000004	FIRST MEDIC® electrodes, defibrillator, rectangular, conductive adhesive	pair	27.00
11996-000041	QUIK-PACE® disposable noninvasive pacing electrodes	1 to 24 pair	39.60
11996-000041	QUIK-PACE® disposable noninvasive pacing electrodes	25 or more pair	31.95
11102-000003	Pediatric QUIK-PACE disposable noninvasive pacing electrodes	1 to 24 pair	39.60
11102-000003	Pediatric QUIK-PACE disposable noninvasive pacing electrodes	25 or more pair	31.95
11110-000040	QUIK-COMBO therapy cable For use with LIFEPAK 12	Each	n/a

		defibrillator/monitor		
	11110-000054	QUIK-COMBO extension cable (4 feet)	Each	115.20
	11110-000052	QUIK-COMBO cable to FAST-PATCH cable From LIFEPAK 12 unit to FAST-PATCH Plus electrodes	Each	207.90
	11110-000049	QUIK-COMBO cable to FAST-PATCH cable From LIFEPAK 500 unit to FAST-PATCH Plus electrodes	Each	273.60
	11110-000010	QUIK-COMBO defibrillation/ECG cable For use with LIFEPAK 9 defibrillator/monitor family. QUIK-COMBO test post adapter attached	Each	209.70
<b>QUIK-COMBO ADAPTERS FOR COMPETITIVE EQUIPMENT</b>				
	11103-000005	Zoll Adapter: Converts Zoll® connector to QUIK-COMBO connector. Note: Order must be called in by Sales or Service Rep	Each	46.80
	11103-000006	Philips (formerly Agilent or HP) Adapter: Converts Philips round connector to QUIK-COMBO connector. Does not work with FR2-style rectangular connectors	Each	46.80
	11103-000007	Laerdal Adapter: Converts Laerdal connector to QUIK-COMBO connector	Each	46.80
	11103-000008	R2® Adapter: Converts R2 connector to QUIK-COMBO connector	Each	46.80
<b>MISCELLANEOUS QUIK-COMBO ACCESSORIES</b>				
	11998-000158	QUIK-COMBO therapy cable tester	Each	148.50
	11998-000011	QUIK-COMBO test post adapter kit. To adapt QUIK-COMBO pacing/defibrillation/ECG cable for use with posted QUIK-TEST™ cable tester or patient simulator.	Each	75.60
	26500-000112	Inservice Video: QUIK-COMBO pacing/defibrillation/ECG electrodes	Each	17.10
	11996-000014	Carrying case: For QUIK-COMBO pacing/defibrillation/ECG electrodes	Each	22.50
<b>PAPER AND JEL</b>				
	11240-000013	Box of ECG Printer Paper, 50 mm x 30 m (3 rolls per box)	1 to 49 boxes	14.40
	11240-000013	Box of ECG Printer Paper, 50 mm x 30 m (3 rolls per box)	50 or more boxes	11.70
	11240-000016	Box of Strip Chart Recorder Paper, 100 mm x 22 m (2 rolls per box)	1 to 23 boxes	15.30
	11240-000016	Box of Strip Chart Recorder Paper, 100 mm x 22 m (2 rolls per box)	24 or more boxes	11.70
	11120-000001	DERMA-JEL® electrode gel One 4 oz. gel tube for use with hard paddles	Each	3.60
<b>MASIMO SET® SpO2 ACCESSORIES FOR LIFEPAK 12 and 20 DEFIBRILLATOR/MONITORS</b>				
	11171000006	Masimo SET SpO2 Patient Cable – 4 foot		132.30
	11171000008	Masimo SET SpO2 Patient Cable – 8 foot		132.30
	11171000009	Masimo SET SpO2 Patient Cable – 12 foot		142.20
	11171000007	Masimo SET SpO2 Sensor – Adult Reusable		288.00
	11171000010	Masimo SET SpO2 Sensor – Pediatric Reusable		288.00
	11171000011	Masimo SET SpO2 Sensor – Adult Disposable (1 box of 20 sensors)		270.00
	11171000012	Masimo SET SpO2 Sensor – Pediatric Disposable (1 box of 20 sensors)		306.00
	11171000013	Masimo SET SpO2 Sensor – Neonatal (< 10 KG) Disposable (1 box of 20 sensors)		378.00
	11171000014	Masimo SET SpO2 Sensor – Neonatal (< 1 KG) Disposable (1 box of 20 sensors)		414.00
	11996000183	NC Adapter Cable: Allows LP12 with Masimo SpO2 to connect to Nellcor sensors		157.50
	11996000184	AC Adapter Cable: Allows LP12 with Nellcor SpO2 to connect to Masimo sensors		67.50

<b>NELLCOR SpO2 SENSORS AND ACCESSORIES FOR THE LIFEPAK 12 DEFIBRILLATOR/MONITOR</b>		
11996-000060	DS100A DURASENSOR® Adult (Reusable) Includes 1 reusable clip, 1-year warranty	184.50
11996-000106	DURA-Y® Multisite Sensor (Reusable) Includes 1 reusable sensor, 6-month warranty	184.50
11996-000061	Oxiband Adult/Neonatal Sensor (Reusable) Includes 50 Adhesive Bandage Wraps, 3-month warranty (Sensor)	139.50
11996-000062	Oxiband Pediatric/Infant Sensor (Reusable) Includes 50 Adhesive Bandage Wraps, 3-month warranty (Sensor)	139.50
11996-000110	Disposable Adhesive Foam Wrap for OXI-A/N: 2 bags of 50 11996-000048 Disposable Adhesive Bandage Wrap for OXI-A/N: 2 bags of 50	51.30 51.30
11996-000108	Disposable Adhesive Foam Wrap for OXI-P/I: 2 bags of 50	51.30
11996-000049	Disposable Adhesive Bandage Wrap for OXI-P/I: 2 bags of 50	96.30
11996-000107	Disposable Posey Wrap for Oxiband: bag of 12	351.00
11996-000113	Oxisensor® II adult sensor (Disposable): box of 24	396.00
11996-000114	Oxisensor II adult sensor, long cable (Disposable): box of 24	351.00
11996-000116	Oxisensor II pediatric sensor (Disposable): box of 24	459.00
11996-000115	Oxisensor II infant sensor (Disposable): box of 24	459.00
11996-000117	Oxisensor II neonatal sensor (Disposable): box of 24	
11996-000052	Oxisensor II adult sensor asst. pack (Disposable): Includes 2xD25 and 1xD25L	49.50
11996-000051	Oxisensor II pediatric sensor asst. pack (Disposable): Includes 2xD20 and 1xD20	54.00
11996-000050	Oxisensor II neonatal sensor asst. pack (Disposable): Includes 2xN25 and 1xD20	58.50
11110-000042	DEC-4 Cable Extension: 4-foot extension cable	50.00
11110-000176	DEC-8 Cable Extension: 8-foot extension cable	54.00
<b>EtCO2 CIRCUITS FOR INTUBATED APPLICATIONS</b>		
11996-000161	FilterLine® SET Adult/Pediatric – Includes airway adapter. FilterLine (79") for short term intubated patients (24 hours typical). 1 PACK (1/pack)	9.00
11996-000081	FilterLine SET Adult/Pediatric – Includes airway adapter. FilterLine (79") for short term intubated patients (24 hours typical). BOX OF 25 (box of 25)	193.50
11996-000164	FilterLine SET Long Adult/Pediatric – Includes airway adapter. Long-length FilterLine (185") for short term intubated patients (24 hours typical). BOX OF 25 (box of 25)	216.00
11996-000080	FilterLine H SET Adult/Pediatric – Includes airway adapter. High humidity FilterLine (79") for long term intubated patients (72 hours typical). BOX OF 25 (box of 25)	310.50
11996-000001	FilterLine H SET Infant/Neonatal – Includes airway adapter. High humidity FilterLine (79") for long term intubated patients (72 hours typical). BOX OF 25 (box of 25)	382.50
<b>EtCO2 CIRCUITS FOR NON-INTUBATED APPLICATIONS</b>		
11996-000160	Smart CapnoLine™ Plus with O2 delivery – Adult/intermediate (for patients above 44 lbs) O2 delivery and CO2 sampling via mouth or nose (12 hours typical length of use). 1 PACK (1 pack)	12.60
11996-000163	Smart CapnoLine Plus with O2 delivery – Adult/intermediate (for patients above 44 lbs) O2 delivery and CO2 sampling via mouth or nose (12 hours typical length of use). BOX OF 25	265.50
11996-000167	Smart CapnoLine Plus with O2 delivery – Adult/intermediate (for patients above 44 lbs) O2 delivery and CO2 sampling via mouth or nose (12 hours typical length of use). CASE OF 100	955.80
11996-000165	Smart CapnoLine Plus Long with O2 delivery – Adult/intermediate (for patients above 44 lbs) Long length nasal cannula (165") for O2 delivery and CO2 sampling via mouth or nose (box of 25) (12 hours typical length of use).	292.50
11996-000128	Smart CapnoLine with O2 delivery – Pediatric (for patients less	265.50



		than 44 lbs) O2 delivery and CO2 sampling via mouth or nose (12 hours typical length of use). BOX OF 25	
11996-000159		Smart CapnoLine Plus – Adult/intermediate (for patients above 44 lbs) CO2 sampling via the mouth or the nose (12 hours typical length of use). 1/PACK	10.80
11996-000162		Smart CapnoLine Plus – Adult/intermediate (for patients above 44 lbs) CO2 sampling via the mouth or the nose (12 hours typical length of use). BOX OF 25	234.00
11996-000166		Smart CapnoLine Plus – Adult/intermediate (for patients above 44 lbs) CO2 sampling via the mouth or the nose (12 hours typical length of use). CASE OF 100	842.40
11996-000120		Smart CapnoLine – Pediatric (for patients less than 44 lbs) CO2 sampling via the mouth or the nose (12 hours typical length of use). BOX OF 25	234.00
<b>NIBP SUPPLIES</b>			
11996-000125		NIBP Hose, Coiled, 2-9 feet	24.30
11996-000089		NIBP Hose, 12 foot	24.30
11996-000033		NIBP Hose, 9 foot	24.30
11996-000024		Adult Cuff	23.40
11996-000025		Large Adult Cuff	26.10
11996-000023		Small Adult Cuff	22.50
11996-000022		Child Cuff (Pediatric)	18.90
11996-000021		Small Child Cuff	18.90
11996-000026		Thigh Cuff	109.80
11996-000020		Infant Cuff	16.20
11996-000029		Small Adult Cuff	9.90
11996-000030		Adult Cuff	9.90
11996-000031		Large Adult Cuff	9.90
11996-000032		X-Large Adult Cuff	13.50
11996-000028		Child Cuff (Pediatric)	8.10
11996-000027		Infant Cuff	7.20
<b>ELECTRODE TRAINING PRODUCTS</b>			
11103-000001		QUIK-COMBO pacing/defibrillation/ECG training electrodes Reusable training electrodes, good for 50 uses.	21.60
11110-000011		QUIK-COMBO training electrodes cable (extension wire) Required to use QUIK-COMBO training electrodes.	255.60
11101-000007		Defibrillation/ECG training electrodes, posted /pr.	22.50
11110-000085		Defibrillation/ECG training electrodes (extension wire)	164.70
11101-000004		Adult AED training electrode training set Consists of 5 pair reusable AED training electrodes, cable connector assembly and reusable foil pouch. Reusable training electrodes good for 30 applications.	55.80
11101-000003		Replacement Adult AED training electrodes Five (5) pair reusable training electrodes. Adhesive electrode portion only. Cable/connector assembly and reusable foil pouch sold separately.	32.40
11101-000006		Cable/connector assembly and reusable foil pouch for Adult AED training electrodes Cable, connector and foil pouch only. Adhesive portion of AED training electrodes sold separately	23.40
11250-000045		Infant/child AED training electrode training set Consists of 5 pair reusable AED training electrodes, cable connector assembly and reusable foil pouch. Reusable training electrodes good for 30 applications.	55.80
11250-000042		Replacement infant/child AED training electrodes Five (5) pair reusable training electrodes. Adhesive electrode portion only. Cable/connector assembly and reusable foil pouch sold separately	31.50
11250-000043		Cable/connector assembly and reusable foil pouch for infant/child AED training electrodes. Cable, connector and foil pouch only. Adhesive portion of AED training electrodes sold separately	31.50
11200-000001		QUIK-COMBO 12-lead patient simulator Includes ECG, defibrillation, pacing and acute MI simulation.	580.00

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**Medtronic**  
PHYSIO-CONTROL

0465-14-05

# LIFEPAK<sup>®</sup> 500

Automated External Defibrillator

**ADAPTIV<sup>™</sup> Biphasic  
Technology**

**Always visible readiness  
display**

**Simple 2- or 3-button  
operation**

**Low maintenance**

**Portable, lightweight**

**Rugged, durable**

**Powerful, user-friendly  
data management**

**Compatible with  
Medtronic  
Physio-Control  
electrodes and  
LIFENET<sup>®</sup> data  
management system**



The LIFEPAK 500 automated external defibrillator is designed to be used by first responders to cardiac emergencies. This affordable, rugged device is extremely portable at only seven pounds (3.2kg). Low maintenance requirements and intuitive operation make it the ideal product for all AED users.

The 500 offers a choice of ADAPTIV Biphasic Technology or industry standard Edmark defibrillation waveforms, both with the capability to deliver shocks at energy levels which meet current American Heart Association and international guidelines. Both monophasic and biphasic devices utilize the same field-proven Shock Advisory System<sup>™</sup> used in over 100,000 LIFEPAK AEDs since 1986.

Features include pre-connected QUIK-COMBO<sup>™</sup> electrodes that save valuable time on-scene and are compatible with other LIFEPAK defibrillators; clear, concise voice prompting for defibrillation and CPR; LCD for text messages, shock count, CPR time, and real-time clock. Choice of simple 2- or 3-button

operation allows the 500 to meet the needs of responders with a variety of training and experience levels. Automatic self-testing saves time and improves testing consistency. Always visible readiness display (available on devices with ADAPTIV biphasic technology only) provides SERVICE REQUIRED or LOW BATTERY alert. Battery options include a rechargeable sealed lead-acid battery and high capacity extended shelf-life lithium batteries that require no recharging and no maintenance.

ECG data and on-scene audio (optional) are stored digitally within the device for maximum durability and simplicity. Incident data can be conveniently transmitted from the 500 to medical control via modem. CODE SUMMARY<sup>™</sup> reports can be printed directly to a standard printer for rapid access to information. User-friendly PC-based software allows complete, efficient review of both ECG and audio data. 500 data can be stored in a CODE-STAT<sup>™</sup> Suite database with other Medtronic Physio-Control defibrillator and 12-lead data for comprehensive system-wide review and reporting.

# SPECIFICATIONS 1 LIFEPAK 500 Automated External Defibrillator with Traditional Monophasic or New Biphasic Technology

## DEFIBRILLATOR

**Input:** ECG via QUIK-COMBO or FAST-PATCH® disposable electrodes. Standard placement (anterior-lateral).

**Electrical Protection:** Input protected against high voltage defibrillator pulses per IEC 60601/EN 60601.

**Safety Classification:** Internally powered equipment IEC 60601-1/EN 60601-1, 5.1.

**Waveform:** Monophasic pulse (Edmark) per AAMI DF2 1989, 3.2.1.5.1.

Biphasic truncated exponential, with voltage and duration compensation for patient impedance.\*

**Output Energy Sequence:** Monophasic: 200, 200, 360 joules (360 joules thereafter) or 200, 300, 360 joules (360 joules thereafter).

**Biphasic:** Three levels, user configurable from 200 to 360 joules, delivered (Level 1, Level 2, Level 3, Level 3...).

**Charge Time:** With a new, nonrechargeable battery pak, or a new, fully charged rechargeable battery pak: 200 joules in less than 9 seconds  
360 joules in less than 15 seconds

### Controls:

ON/OFF

ANALYZE (optional)

SHOCK

Turns device power on or off.  
Starts ECG analysis.  
Delivers defibrillation energy.  
Active only when Shock  
Advisory System advises  
defibrillation.

**Clock Set:** Two switches ▲ and ► are provided to set the clock.

**Display:** Two-line, 20-character per line dot matrix Liquid Crystal Display.

**Low Battery Indicator:** Low battery icon:

At least 11 discharges remaining with nonrechargeable battery pak.

At least 6 discharges remaining with rechargeable battery pak.

**Service Indicator:** Service icon.

**Displayed Messages:** Messages prompt user through complete operating sequence.

**Audible Tones:** Coded tones assist user through device operation and alert operator of display messages.

**Voice Prompts:** Prompt user through complete operation sequence.

**Infant/Child Reduced Energy Defibrillation Electrodes:** Intended for use on children up to 8 years of age or 25kg (55 lb) with biphasic LIFEPAK 500 AEDs with a pink connector.

\*Note: Specifications apply from 25 to 200 ohms. Voltage compensation is limited to the voltage that would result in delivery of 360 joules into 50 ohms.

## EVENT DOCUMENTATION

**Type:** Internal digital memory.

**Memory Capacity:** 20 minutes audio recording (optional). ECG and event log of operator/device actions:

At least 20 minutes if unit is configured with audio recording and audio recording setup option is ON.  
At least 80 minutes if configured with audio recording and audio recording setup option is OFF.  
At least 60 minutes if not configured with audio recording.

**Report Types:** CODE SUMMARY report, Event Log report, Test Log report.

**Capacity:** 300 Event Log events. 30 Test Log device tests (assuming no fault codes).

**Communications:** Options:

- Direct connection to personal computer.
- Modem connection to personal computer using Hayes AT-Compatible modem.
- Print direct with EPSON® ESC/P protocol for printers with 9-pin printheads.

**Data Review:** LIFENET system compatible. Options:

- DATA TRANSFER™ 500 information management program.
- QUIK-VIEW™ 500 data review program.
- CODE-STAT SUITE data management system, v2.0 or above.

## ENVIRONMENTAL

**Operating Temperature:** 0° to 50°C (+32° to +122°F).

**Storage Temperature:** -30° to +65°C (-22° to +149°F) without battery and electrodes.

-30° to +65°C (-22° to +149°F) with battery and electrodes, maximum exposure time limited to one week.

**Atmospheric Pressure:** 760 to 429mmHg (0 to +15,000 ft above sea level).

**Relative Humidity:** 10 to 95% (non-condensing).

**Water Resistance:** IEC 60529/EN 60529 IPX4 "Splash-proof" with electrodes or connector cover installed.

**Shock:** MIL-STD-810E, Method 516.4, Procedure 1 (40g, 6-9ms pulse, 1/2 sine each axis).

**Vibration:** Monophasic version: MIL STD 810E, Method 514.4, Category 10.

Biphasic version: MIL-STD-810E, Method 514.4, Helicopter—Category 6 (3.75 Grms) and Ground Mobile—Category 8 (3.15 Grms). RTCA DO 160C, Table 8-2 Fixed Wing—Turbojet Engine Classification C' (Fuselage). Test level per Figure 8-5 C. One hour in each of three axes.

**Aircraft:** RTCA/DO-160C, "Environmental Conditions and Test Procedures for Airborne Equipment," Section 21, Category M, (Radiated Emissions).

## BATTERIES

**Note:** See Operating Instructions for information on caring for batteries.

**Rechargeable SLA Battery Pak**

**Type:** Sealed lead-acid, 8V, 2.5 amp hours.

**Capacity:** Typical: 59 full discharges or 3 hours of "ON" time with a new, fully charged battery. Minimum: 43 full discharges with a new, fully charged battery.

**Battery Charge Time:** 10±1 hours. Battery charging limited to +15° to +35°C (+59° to +95°F).

**Recommended Replacement Interval:** 2 years or 200 battery charge/discharge cycles, whichever comes first using recommended battery maintenance procedures.

**Weight:** 0.9kg (1.9 lb).

**Nonrechargeable Lithium Sulphur Dioxide (LiSO<sub>2</sub>) Battery Pak**

**Type:** Sealed lithium, 12V, 7.5 amp-hours.

**Certification:** FAA: TSO-C97 or CAA: BS2G237.

**Capacity:** Typical: 312 full discharges or 14 hours of "ON" time. Minimum: 230 full discharges with a new battery.

**Shelf-Life:** 5 years\*\* (4 years for aircraft use.)

**Weight:** 0.5kg (1.2 lb).

**Nonrechargeable Manganese Dioxide (LiMnO<sub>2</sub>) Battery Pak**

**Type:** Sealed lithium, 12V, 10.0 amp-hours.

**Capacity:** Typical: 416 full discharges or 18 hours of "ON" time. Minimum: 230 full discharges with a new battery.

**Shelf-Life:** 5 years.

**Weight:** 0.5kg (1.2 lb).

\*\*Note: See Operating Instructions for information on caring for batteries.

## GENERAL


**Physical Characteristics**

**Height:** 10.2cm (4.0 in).

**Width:** 26.7cm (10.5 in).

**Depth:** 29.5cm (11.6 in) including handle.

**Weight:** Monophasic version: 6.2 lbs (without battery or electrodes). Biphasic version: 5.3 lbs (without battery or electrodes).

 Defibrillation protected, type BF patient connection.

All specifications are at 20°C unless otherwise specified. All performance specifications assume the device has been stored (two hours minimum) at the operating temperature prior to operation.



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Fax: 34.91.650.74.10

**Scandinavia**  
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Fax: 46.8.52.22.00.50

**Asia Pacific**  
Christchurch, New Zealand  
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Fax: 64.3.3792.374

**Latin America & Caribbean**  
Weston, Florida USA  
Tel: 954.385.3403  
Fax: 954.308.0176

**Middle East**  
Beirut, Lebanon  
Tel: 961.1.370.670  
Fax: 961.1.364.164

**Hungary**  
Budapest, Hungary  
Tel: 36.1.214.2228  
Fax: 36.1.214.2230

**Poland**  
Warsaw, Poland  
Tel: 48.22.465.69.00  
Fax: 48.22.465.69.17

**Czech Republic**  
Prague, Czech Republic  
Tel: 420.2.2017.2277  
Fax: 420.2.2056.1617

**People's Republic of China**  
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Fax: 86.21.50800978

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Fax: 27.11.616.1104

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Fax: 61.2.9879.5100



**Medtronic**  
PHYSIO-CONTROL

0465-14-05-001

# LIFEPAK<sup>®</sup> 500 DPS

Defibrillator—Public Safety

From Medtronic Physio-Control, the world leader in medical technology, created for law enforcement and fire services personnel

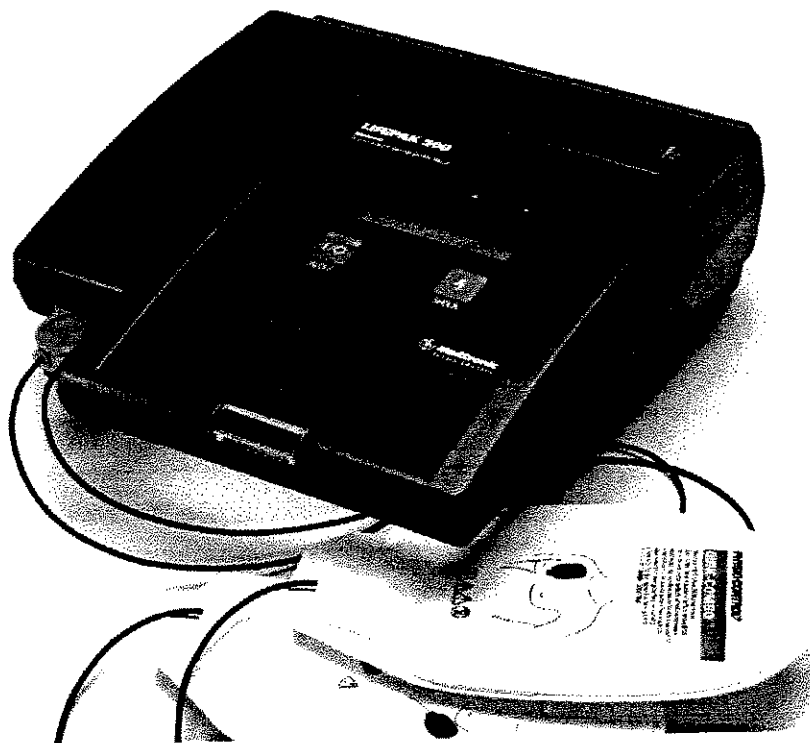
Designed for rugged use: the toughest specifications in the industry

Lightweight, easy to carry

ADAPTIV<sup>™</sup> biphasic technology

Powerful, user-friendly data management

QUIK-COMBO<sup>™</sup> pacing/defibrillation/ECC electrodes enable fast, accurate use



Medtronic Physio-Control created the LIFEPAK 500 Defibrillator—Public Safety especially for law enforcement and fire services personnel. Designed for use at the scene of a sudden cardiac arrest, it is easy for someone with minimal training and little or no experience to use. An internal computer analyzes the heart's rhythm, enabling rescuers trained in basic life support (BLS) to give potentially lifesaving treatment with the press of a button. Clear, concise voice prompting guides you through CPR and defibrillation.

Designed for rugged use, the 500 DPS has automatic self-testing so it is always ready to go—like you are. Its low maintenance battery provides a maximum operating time of 18 hours or 416 shocks before needing a new battery or recharging. Rugged and reliable, the 500 DPS has the toughest specifications we offer. Compact and lightweight, you can easily rush it to the victim's side.

The 500 DPS is equipped with the latest ADAPTIV biphasic technology. It automatically adjusts the shock to each person's needs and can provide additional, higher energy shocks (up to 360J) if the heart doesn't respond to the first shock.

The 500 DPS is compatible with the LIFEPAK devices used by 9 out of the top ten emergency medical systems in the U.S., promoting fast, smooth transitions from the field to the hospital. It is also compatible with data management software from Medtronic Physio-Control, enabling easy data transfer and storage for reporting and evaluation.

## DEFIBRILLATOR

**Input:** ECG via QUIK-COMBO disposable electrodes. Standard placement (anterior-lateral).

**Electrical Protection:** Input protected against high voltage defibrillator pulses per IEC 60601-1/EN 60601-1.

**Safety Classification:** Internally powered equipment IEC 60601-1/EN 60601-1, 5.1.

**Waveform:** Biphasic truncated exponential, with voltage and duration compensation for patient impedance.\*

**Output Energy Sequence:** Biphasic: Three levels, user configurable from 200 to 360 joules, delivered (Level 1, Level 2, Level 3, Level 3...).

**Charge Time:** With a new, nonrechargeable battery pack, 200 joules in less than 9 seconds. 360 joules in less than 15 seconds.

**Controls:**  
ON/OFF Turns device power on or off.  
ANALYZE Starts ECG analysis.  
SHOCK Delivers defibrillation energy. Active only when Shock Advisory System™ advises defibrillation.

**Clock Set:** Two switches ▲ and ▼ are provided to set the clock.

**Display:** Two-line, 20-character per line dot matrix Liquid Crystal Display.

**Readiness Display:** Indicates OK when self-test completed successfully.

**Low Battery Indicator:** Low battery icon: At least 11 discharges remaining with nonrechargeable battery pack. At least six discharges remaining with rechargeable battery pack.

**Service Indicator:** Service icon.

**Displayed Messages:** Messages prompt user through complete operating sequence.

**Audible Tones:** Coded tones assist user through device operation and alert operator of display messages.

**Voice Prompts:** Prompt user through complete operation sequence.

**Color:** Dark gray.

\*Note: Specifications apply from 25 to 200 ohms. Voltage compensation is limited to the voltage that would result in delivery of 360 joules into 50 ohms.

## EVENT DOCUMENTATION

**Type:** Internal digital memory.

**Memory Capacity:** 20 minutes audio recording (optional). ECG and event log of operator/device actions: At least 20 minutes if unit is configured with audio recording and audio recording setup option is ON.

**Report Types:** CODE SUMMARY™ report, Event Log report, Test Log report.

**Capacity:** 300 Event Log events. 30 Test Log device tests (assuming no fault codes).

## Communications: Options:

- Direct connection to personal computer.
- Modern connection to personal computer using Hayes AT-Compatible modem.
- Print direct with EPSON® ESC/P protocol for printers with 9-pin printheads.

## Data Review: LIFENET system compatible. Options:

- DATA TRANSFER™ 500 information management program.
- QUIK-VIEW™ 500 data review program.
- CODE-STAT SUITE data management system, v2.0 or above.

## ENVIRONMENTAL

**Operating Temperature:** 0° to 50°C (+32° to +122°F).

**Storage Temperature:** -30° to +65°C (-22° to +149°F) without battery and electrodes. -30° to +65°C (-22° to +149°F) with battery and electrodes, maximum exposure time limited to one week.

**Relative Humidity:** 10 to 95% (non-condensing).

**Atmospheric Pressure:** MIL-STD-810E, Method 500.3, Procedure II (Operation): minus 2000 ft to 15,000 ft.

**Dust/Water Resistance:** IEC 60529/EN 60529 IP54 (Dust/Splash-proof) with electrodes or connector cover installed.

**Shock:** IEC 600-68-2-29 (Bump) 40g, 6000 bumps.

**Vibration:** MIL-STD-810E, Method 514.4, Helicopter—Category 6 (3.75 G<sub>RMS</sub>) and Ground Mobile—Category 8 (3.15 G<sub>RMS</sub>). RTCA/DO-160C, Table 8-2 Fixed Wing—Turbojet Engine Classification C' (Fuselage). Test level per Figure 8-5 C'. One hour in each of three axes.

MIL-STD-810F, Method 514.5, Helicopter, Operational: Sine/Random (1.58 G<sub>RMS</sub>), one hour per axis and storage: Sine/Random (3.10 G<sub>RMS</sub>), one hour per axis; Jet aircraft, Random (3.54 G<sub>RMS</sub>), 30 min. per axis; Turboprop, Random (4.87 G<sub>RMS</sub>), one hour per axis.

**Aircraft:** RTCA/DO-160C "Environmental Conditions and Test Procedures for Airborne Equipment", Section 21, Category M, (Radiated Emissions).

**ESD:** Electrostatic Discharge: Exceeds IEC 60601-1/EN 60601-1 (8kV contact, 15kV air).

**Salt Fog:** MIL-STD-810E, Method 509.3.

**Highly Accelerated Life Test (HALT):** Random vibration/temperature step stress, 6 degrees of freedom up to 46 G<sub>RMS</sub> and -70° to 110°C (-158° to 230°F) at PCB level.

## BATTERIES

Note: See Operating Instructions for information on caring for batteries.

### Rechargeable SLA Battery Pack

**Type:** Sealed lead-acid, 8V, 2.5 amp hours.

**Capacity:** Typical: 59 full discharges or 3 hours of "ON" time with a new, fully charged battery. Minimum: 43 full discharges with a new, fully charged battery.

**Battery Charge Time:** 10±1 hours. Battery charging limited to +15° to +35°C (+59° to +95°F).

**Recommended Replacement Interval:** 2 years or 200 battery charge/discharge cycles, whichever comes first using recommended battery maintenance procedures.

**Weight:** 0.9kg (1.9 lb).

### Nonrechargeable Lithium Sulphur Dioxide (LiSO<sub>2</sub>) Battery Pak

**Type:** 12V, 7.5 amp-hours.

**Color:** Dark gray (3005380-042).

**Certification:** FAA: TSO-C97 (Battery 3005380-027). CAA: BS2G239 (Battery 3005380-028).

**Capacity:** Typical: 312 full discharges or 14 hours of "ON" time. Minimum: 230 full discharges with a new battery.

**Shelf-Life:** 5 years\*\* 4 years (TSO-C97 for aircraft use.)

**Weight:** 0.5kg (1.2 lb).

### Nonrechargeable Manganese Dioxide (LiMnO<sub>2</sub>) Battery Pak

**Type:** Sealed lithium, 12V, 10.0 amp-hours.

**Certification:** FAA: TSO-C142 (Battery 3201856).

**Capacity:** Typical: 416 full discharges or 18 hours of "ON" time. Minimum: 230 full discharges with a new battery.

**Shelf-Life:** 5 years.

**Weight:** 0.5kg (1.2 lb).

\*\*Note: See Operating Instructions for information on caring for batteries.

## GENERAL

### Physical Characteristics

**Height:** 10.2cm (4.0 in).

**Width:** 26.7cm (10.5 in).

**Depth:** 29.5cm (11.6 in) including handle.

**Weight:** 5.3 lbs (without battery or electrodes).



Defibrillation protected, type BF patient connection.

All specifications are at 20°C unless otherwise specified. All performance specifications assume the device has been stored (two hours minimum) at the operating temperature prior to operation.

Improved or added environmental specifications.



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STATE OF OKLAHOMA/NASPO CONTRACT PRICING-CONTRACT #SW60030

Medtronic Emergency Response Systems

MEDTRONIC LIFEPAK 12

0465-14- 05-026 (To order, list part numbers, descriptions, prices and total under this commodity code)

<p><b>LIFEPAK® 12 Defibrillator/Monitor with ADAPTIV™ Biphasic Waveform</b> Includes manual external defibrillation, 3-lead ECG cable (non-12-lead units only), QUIK-COMBO™ therapy cable, 50 mm printer, 3-pack ECG electrodes, 3 rolls 50 mm paper, operating instructions, in-service video, service manual on CD-ROM, and test load. (Batteries and carry case not included.) EL Display Optional electroluminescent display. AED (Automated External Defibrillation) Noninvasive Pacing SpO2 Pulse Oximetry (SpO2) Includes 8-foot cable and a sample disposable sensor pack. Optional reusable sensor available. Use of LIFEPAK NiCd batteries is strongly recommended with this option. 12-Lead ECG Monitoring Includes 5-foot main trunk cable, 4-wire limb lead attachment, 6-wire precordial lead attachment, 2 each 3-pack and 1 each 4-pack of ECG electrodes, 100 mm printer and 2 rolls of paper (in place of 50 mm printer and paper). Optional 8-foot main trunk cable available. Noninvasive Blood Pressure (NIBP) Includes 2-foot-9-foot coiled hose and reusable adult cuff. Use of LIFEPAK NiCd batteries is strongly recommended with this option. Capnography (EtCO2) Includes 100 mm printer (REQUIRED) and 2 rolls of paper (in place of 50 mm printer and paper) and a 5-lead ECG cable. Use of LIFEPAK NiCd batteries is strongly recommended with this option. Fax Transmission Enables LIFEPAK 12 unit to transmit 12-Lead reports to a remote fax machine (requires Internal Modem or External Modem). 100 mm Printer Includes a 5-wire ECG cable, 100 mm printer, and 2 rolls of paper (in place of 50 mm printer and paper). LIFEPAK 12 Voice Recorder Accessory Includes one USB cable and CD containing voice recorder software for a Windows® 2000 or 98 SE PC. Two Invasive Pressure Channels (IP) Includes Premium (trending) software package, 100 mm printer, and 2 rolls of paper (in place of 50 mm printer and paper), and a 5-lead ECG cable. Premium (Trending) Software for Vital Signs Includes ST measurement trending. Requires 100 mm printer to print trend reports.</p>			
CATALOG #	PRODUCT DESCRIPTION	PRICE EACH	QUANTITY DISCOUNT
97400-002496	Basic Biphasic, AED, EL, Pace, 50 mm	8,550.00	
99400-002505	Mid Basic + Trend, 100 mm, SPO2, NIBP	12,245.00	
	Loaded Everything but IP and Voice Recording	20,480.00	
<p><b>Options * If 12-Lead, CO2 and/or IP are added to the Basic Configuration, the 100 mm Printer and Trending will automatically be included to make the parameters fully functional. If these parameters are added to the Mid or Loaded Configuration</b></p>			
	NA SpO2 (MASIMO)	n/a	
	NA NIBP	n/a	
	NA 12-Lead Includes FAX Software (Modem and Door required),	n/a	
	100 mm Printer and Trend (if applicable)*	n/a	
	NA CO2 Includes 100 mm Printer and Trend (if applicable)*	n/a	
	NA IP Includes 100 mm Printer and Trend (if applicable)*	n/a	
<b>Configurations with Optional Features</b>			
99400-000372	Basic Bi, AED, EL, Pace, 50 mm	8,550.00	
99400-000960	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, 12-Lead	14,215.00	
99400-001492	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, 12-Lead, CO2	17,510.00	
99400-002193	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, 12-Lead, CO2, IP	18,710.00	
99400-002194	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, 12-Lead, IP	15,415.00	
99400-001512	Basic Bi, AED, EL, Pace, Trend, 100 mm, CO2	12,045.00	
99400-001740	Basic Bi, AED, EL, Pace, Trend, 100 mm, CO2, IP	13,245.00	
99400-001472	Basic Bi, AED, EL, Pace, Trend, 100 mm, IP	9,950.00	
99400-000526	Basic Bi, AED, EL, Pace, 50 mm, NIBP	10,545.00	
99400-001206	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, NIBP, 12-Lead	16,210.00	
99400-001665	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, NIBP, 12-Lead, CO2	19,505.00	
99400-001800	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, NIBP, 12-Lead, CO2, IP	20,705.00	
99400-002177	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, NIBP, 12-Lead, IP	17,410.00	
99400-002195	Basic Bi, AED, EL, Pace, Trend, 100 mm, NIBP, CO2	14,040.00	
99400-000979	Basic Bi, AED, EL, Pace, Trend, 100 mm, NIBP, CO2, IP	15,240.00	
99400-001035	Basic Bi, AED, EL, Pace, Trend, 100 mm, NIBP, IP	11,945.00	

99400-002492	Basic Bi, AED, EL, Pace, 50 mm, SpO2	9,525.00
99400-002500	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, 12-Lead	15,190.00
99400-002501	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, 12-Lead, CO2	18,485.00
99400-002502	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, 12-Lead, CO2, IP	19,685.00
99400-002503	Basic Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, 12-Lead, IP	16,390.00
99400-002493	Basic Bi, AED, EL, Pace, Trend, 100 mm, SpO2, CO2	13,020.00
99400-002494	Basic Bi, AED, EL, Pace, Trend, 100 mm, SpO2, CO2, IP	14,220.00
99400-002495	Basic Bi, AED, EL, Pace, Trend, 100 mm, SpO2, IP	10,925.00
99400-002496	Mid Bi, AED, EL, Pace, Trend, 100 mm, SpO2, NIBP	12,245.00
99400-002504	Mid Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, NIBP, 12-Lead	17,185.00
99400-2507	Mid Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, NIBP, 12-Lead, IP	18,385.00
99400-002497	Mid Bi, AED, EL, Pace, Trend, 100 mm, SpO2, NIBP, CO2	15,015.00
99400-002498	Mid Bi, AED, EL, Pace, Trend, 100 mm, SpO2, NIBP, CO2, IP	16,215.00
99400-002499	Mid Bi, AED, EL, Pace, Trend, 100 mm, SpO2, NIBP, IP	12,920.00
99400-002505	Loaded Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, NIBP, 12-Lead, CO2	20,480.00
99400-002506	Loaded Bi, AED, EL, Pace, Trend, Fax, 100 mm, SpO2, NIBP, 12-Lead, CO2, IP	21,680.00
<b>UPGRADE OPTIONS</b> Price includes upgrade to current software version and field service installation on site or at factory. (Additional charges may apply depending on location.)		
UPG12ECG	12-Lead ECG Monitoring Option Field Service Upgrade 100 mm printer REQUIRED. 100 mm Printer Hardware kit (PRT100) will be added to all quotes and orders unless Upgrade Order Entry Specialist verifies the unit already has a 100 mm printer.	7,605.00
UPG12CO2	EtCO2 Option Field Service Upgrade 100 mm printer REQUIRED. 100 mm Printer Hardware kit (PRT100) will be added to all quotes and orders unless Upgrade Order Entry Specialist verifies the unit already has a 100 mm printer	4,635.00
UPG12TREND	Premium (Trending) Software Upgrade Includes all features in UPG12SW (below), plus; transmission and trending of vital signs, including ST measurement. 100 mm printer REQUIRED. 100 mm Printer Hardware kit (PRT100) will be added to all quotes and orders unless Upgrade Order Entry Specialist verifies the unit already has a 100 mm printer. Memory upgrade (3201482) strongly recommended for units manufactured before June 1999.	715.50
UPG12IP	Two Invasive Pressure Channels (IP) Upgrade 100 mm printer REQUIRED. 100 mm Printer Hardware kit (PRT100) will be added to all quotes and orders unless Upgrade Order Entry Specialist verifies the unit already has a 100 mm printer. Memory upgrade (3201482) strongly recommended for units manufactured before June 1999. Includes Premium (Trending) software package.	2,605.50
PRT100	Printer Hardware Kit Option Required with 12-Lead ECG, EtCO2, IP, and Premium (Trending) Software Field Service Upgrades if unit does not have a 100 mm printer.	225.00
UPG12PRT100	100 mm Printer Field Service Upgrade Includes a 5-wire ECG cable, software update to support 3 channel waveform display configuration (if necessary), 100 mm printer, and 2 rolls of paper	886.50
UPG12NIBP	NIBP Option Field Service Upgrade	2,970.00
UPG12BTE	Biphasic Field Service Upgrade 60-day lead time	3,150.00
UPG12PACE	Pacing Option Field Service Upgrade Includes QUIK-COMBO™ cable.	1,620.00
UPG12SPO2M	SpO2 Option Field Service Upgrade, Masimo	1,575.00
UPG12EL EL	Display w/Software and New Keypad 90-day lead time	2,065.50



	UPG12BLUE	LIFENET BLUE Wireless Data Transfer upgrade for LIFEPAK 12 only with 4 MB memory. Provides cable replacement with bluetooth wireless data communication for LN EMS customers and for transmission of 12-lead ECG data via a bluetooth enabled cell phone to a remote LIFENET Receiving Station. Not available with Masimo SpO2 option.	584.10	
	40998-000163	Memory Upgrade, 4 Meg Doubles available memory on older units	661.50	
	UPG12 SYNC	Sync Thru' Therapy Cable 30-day lead time	1,255.50	
	UPG12AED	Add AED Feature 30-day lead time	625.50	
	UPG12FAX	Fax Transmission Software Field Service Upgrade Requires additional modem and modem door assembly	283.50	
	UPG12KEYPAD	Lead/Select Keypad Upgrade	535.50	
	UPG12VREC	Voice Recorder Accessory Field Service Upgrade Requires additional modem and modem door assembly	1,395.00	
	UPG12SW	Software upgrade to latest version. Must be installed by qualified Medtronic service personnel. Price includes labor and local mileage	535.50	
	POWER OPTIONS (defibrillator/monitor requires 2 batteries for operation)			
	11141-000044	FASTPAK® Battery, 1.2 Amp Hour Capacity Rechargeable nickel-cadmium	119.70	
	11141-000025	FASTPAK 2 Battery, 1.2 Amp Hour Capacity Rechargeable nickel-cadmium, with fuel gauge	109.00	
	11141-000027	LIFEPAK NiCd Battery, 1.7 Amp Hour Capacity Rechargeable nickel-cadmium, with fuel gauge	152.00	
	11141-000026	LIFEPAK NiCd Battery, 2.4 Amp Hour Capacity Rechargeable nickel-cadmium, with fuel gauge. Must be used with an AC or DC Power Adapter that is compatible with 2.4 amp hour batteries. Same size and weight as 1.7 amp hour battery (see above).	204.00	
	11141-000028	LIFEPAK SLA Battery Rechargeable, sealed, lead-acid, 2.5 amp hours capacity	146.00	
	99996-000009	MBSS Mobile Battery Service Station DC and AC operation for mobile transport applications, for use with any of the above batteries. Includes AC power cord, mounting bracket and users manual. (Batteries not included.)	1435.50	
	99996-000010	Bracket for Vertical or Horizontal Mounting of the MBSS Charger	71.10	
	99407-000002	Battery Support System 2 For use with any of the above batteries. Includes power cord and operating instructions. (Batteries not included.)	1,195.00	
	11210-000002	Wall Mount Bracket for Battery Support System 2	68.00	
	99996-000011	12 volt DC Cable for MBSS Charger	44.10	
	11400-000038	AC Power Adapter	672.00	
	11110-000051	Power Adapter Extension Cable for Use with LIFEPAK 12 Optional use with AC Power Adapter	48.00	
	ECG MONITORING AND THERAPY DELIVERY ACCESSORIES			
	11110-000029	3-Wire ECG Cable Right angle connector	79.00	
	11110-000066	5-Wire ECG Cable Right angle connector 4 limb wire plus one chest lead, labeled "V1" on the LIFEPAK 12 reports	179.10	
	11110-000040	QUIK-COMBO Therapy Cable For use with LIFEPAK 12 defibrillator/monitor	223.00	
	12-Lead ECG Patient Cable			
	11110-000111	Main 5-foot trunk (right angle connector)	130.00	
	11110-000110	Main trunk 8-foot (right angle connector)	130.00	
	11110-000102	4-wire limb lead attachment	43.000	
	11110-000103	6-wire pre-cordial lead attachment	69.00	
	11110-000052	FAST-PATCH® Adapter Cable For use with the QUIK-COMBO therapy cable for the LIFEPAK 12 unit	176.00	
	11130-000001	Standard Hard Paddles 1 pair, for use with LIFEPAK 12 defibrillator/monitor.	398.00	
	11133-000001	Pediatric Paddle, External, 1 Each (2 Required) Slips onto standard adult or external sterilizable paddle	48.00	
	11132-000005	Posterior Paddle, External, Adult, 1 Each Slips onto standard adult apex standard paddle or external sterilizable paddle	205.00	

11134-000003	External Sterilizable Paddles 1 pair, for use with LIFEPAK 12 defibrillator/monitor	406.00
11131-000001	Internal Paddle Handles with Discharge Control 1 pair, for use with LIFEPAK 12 defibrillator/monitor	462.00
11131-000010	Internal Paddles – 1 Inch Size (6.25" Shaft Length) 1 pair, requires Internal Paddle Handles.	161.00
11131-000011	Internal Paddles – 1.5 Inch Size (6.00" Shaft Length) 1 pair, requires Internal Paddle Handles.	161.00
11131-000021	Internal Paddles – 1.5 Inch Size (9.00" Shaft Length) 1 pair, requires Internal Paddle Handles	161.00
11131-000012	Internal Paddles – 2 Inch Size (5.75" Shaft Length) 1 pair, requires Internal Paddle Handles	161.00
11131-000022	Internal Paddles – 2 Inch Size (8.75" Shaft Length) 1 pair, requires Internal Paddle Handles	161.00
11131-000013	Internal Paddles – 2.5 Inch Size (5.75" Shaft Length) 1 pair, requires Internal Paddle Handles	161.00
11131-000019	Internal Paddles – 2.5 Inch Size (8.50" Shaft Length) 1 pair, requires Internal Paddle Handles	161.00
11131-000014	Internal Paddles – 3.5 Inch Size (5.00" Shaft Length) 1 pair, requires Internal Paddle Handles	161.00
11131-000023	Internal Paddles – 3.5 Inch Size (8.00" Shaft Length) Requires Internal Paddle Handles	161.00
<b>COMMUNICATION ACCESSORIES</b>		
11150-000006	Internal Modem (PC Card Modem) – For Cellular and Land Transmission Requires modem door assembly	200.00
11150-000009	Modem Door Assembly	34.00
11150-000010	External Modem – For Land Transmission Only Requires external modem cable	200.00
11150-000007	LIFEPAK 12 Unit to External Modem Cable – 6 Foot	49.00
11150-000008	LIFEPAK 12 Unit to External Modem Cable – 10 Foot	49.00
11230-000005	LIFEPAK 12 Unit to PC Serial Port Cable Use with LIFENET® system	72.00
11110-000055	LIFEPAK 12 Configuration Transfer Cable	82.00
11110-000044	Analog ECG Output Cable	48.00
<b>TRAINING TOOLS AND TESTERS</b>		
11201-000001	QUIK-COMBO 3-Lead Patient Simulator Includes ECG, defibrillation, and pacing simulation	508.00
11200-000001	QUIK-COMBO 12-Lead Patient Simulator Includes ECG, defibrillation, pacing, and acute MI simulation Use with 12-Lead ECG feature or 5-Lead ECG cable	580.00
11998-000011	QUIK-COMBO Test Post Adapter Kit To adapt QUIK-COMBO therapy cable for use with posted patient simulator	61.00
11998-000160	QUIK-COMBO Therapy Cable Tester 11202-000006 Patient Simulator – Posted Simulates ventricular fibrillation, normal sinus rhythm, and motion. Use with FAST-PATCH adapter cable	156.60
11998-000060	Defibrillator Checker For hard paddles	188.00
11998-000022	Test Load For use with QUIK-COMBO therapy cable. One included per unit at no charge	57.00
<b>CARRYING CASES AND MOBILE STAND</b>		
11260-000012	Basic Carrying Case Includes shoulder strap, right pouch, and front cover	107.00
11260-000013	Basic Carrying Case – LIFEPAK 12 Unit with AC/DC Power Adapter Includes shoulder strap, right pouch, and front cover	124.00
11260-000010	Replacement Shoulder Strap 11220-000028 Top Pouch Storage for sensors and electrodes; insert in place of standard paddles	25.20
11220-000032	Right Pouch (Note: Included with basic cases)	29.70
11220-000027	Left Pouch Storage for ECG and other monitoring cables; requires basic carrying case	24.00
11220-000036	Back Pouch – Small Ideal for NiCd battery configuration; requires basic carrying case	24.00
11220-000072	Back Pouch – Large Requires basic carrying case	32.00





**Medtronic**  
PHYSIO-CONTROL

0465-14-05-026

# LIFEPAK® 12

Defibrillator / Monitor Series

Small, lightweight,  
rugged unit provides  
therapy and multi-  
parameter monitoring

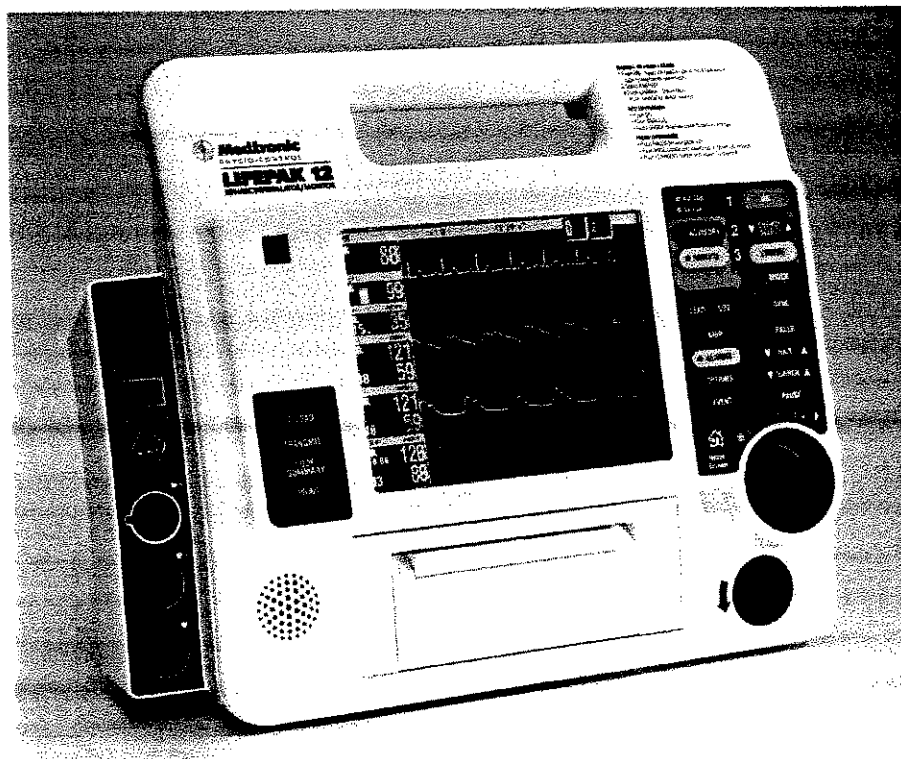
Simple operation,  
dedicated therapy  
controls and one-touch  
operation

Configurable options  
and convenient field  
upgrades

Automated External  
Defibrillator (AED)  
capability with Shock  
Advisory System™

Extensive data storage,  
transmission and  
retrieval capabilities

LIFENET® system  
compatible



## OPTIONS:

ADAPTIV™ Biphasic  
or monophasic  
defibrillation waveforms

EL or LCD display

Noninvasive pacing

GE Medical 12SL® ECG  
analysis program

Nellcor™ pulse oximetry  
(SpO<sub>2</sub>)

Microstream™  
Capnography (EtCO<sub>2</sub>)

Invasive Pressures (2)

Vital signs trending

AC or DC Power  
Adapter

NiCd or SLA batteries

Medtronic Physio-Control offers leading edge solutions for the problems you face today and configurable capabilities for the solutions you will need tomorrow. The LIFEPAK 12 defibrillator/monitor series provides therapeutic and diagnostic functions in a single, small device designed for both out-of-hospital and hospital users. The innovative platform design provides full-featured defibrillation and industry-standard monitoring all loaded into a single portable device.

The 12 offers a choice of ADAPTIV Biphasic or industry standard monophasic (Edmark) defibrillation waveforms, with the capability to deliver shocks at energy levels recommended by the American Heart Association in collaboration with the International Liaison Committee on Resuscitation (ILCOR). Both

monophasic and biphasic devices utilize the same field-proven Shock Advisory System used in thousands of LIFEPAK AEDs since 1986.

Configurable options, including AED and manual defibrillation modes, allow standardization across user groups and ease of patient transfer.

Dedicated defibrillation and pacing therapy buttons provide fast and effective therapy for both beginning and advanced users. The Selector knob and home screen button make it simple to switch between menus.

In AED mode, the LIFEPAK 12 defibrillator/monitor series utilizes the Medtronic Physio-Control field proven Shock Advisory System with clear, voice prompts to advise

**GENERAL**

The LIFEPAK 12 defibrillator/monitor series has five main operating modes:

**Advisory Mode (SAS):** Provides all features available except manual defibrillation, synchronous cardioversion and pacing.

**Manual Mode:** Provides normal operating capability for ALS users.

**Setup Mode:** Allows operator to customize the device.

**Service Mode:** Allows operator to execute device diagnostic tests and calibrations.

**Inservice Mode:** Provides simulated waveforms for demonstration purposes.

**POWER**

**Battery Only Configuration:** Choice of NiCd (FASTPAK® battery, FASTPAK 2 battery, LIFEPAK NiCd battery) or SLA (LIFEPAK SLA battery)

Dual battery capability

Optional external AC and (+12) VDC Power Adapters

Batteries charge while device operates from Power Adapter

**Operating Time:** Two new fully charged batteries will provide the following prior to shutdown:

TOTAL				AFTER LOW BATTERY			
Typical		Min.		Typical		Min.	
LCD	EL	LCD	EL	LCD	EL	LCD	EL

Monitoring (minutes)

NiCd*	110	81	60	43	10	6	2	1
NiCd**	155	114	85	62	14	8	2	1
NiCd***	220	162	120	86	20	12	4	2
SLA	180	132	100	73	16	10	2	1

Defibrillation (360 joule discharges)

NiCd*	80	72	45	40	7	7	3	3
NiCd**	110	99	60	54	10	10	3	3
NiCd***	160	144	90	80	14	14	6	6
SLA	145	131	85	76	12	12	3	3

Monitoring plus pacing (minutes at 100ma, 60ppm)

NiCd*	105	75	60	42	9	6	2	1
NiCd**	145	104	85	60	12	8	2	1
NiCd***	210	150	120	84	18	12	4	2
SLA	170	122	100	71	14	10	2	1

\*FASTPAK, FASTPAK 2

\*\*LIFEPAK NiCd 3009376-00

\*\*\*LIFEPAK NiCd 3009376-01

**Low Battery Indication and Message:** Low battery icon at top of display and low battery message in status area for each battery. When low battery is indicated, device autoswitches to second battery. When both batteries reach a low battery condition, there is a voice prompt to replace battery.

**Warmstart:** With inadvertent loss of power (<30 seconds) device retains settings.

**Service Indicator:** When error detected

**PHYSICAL CHARACTERISTICS**

**Weight:** Basic defibrillator/monitor with QUIK-COMBO™ cable: 6.0kg (13.3 lbs) (unit and QUIK-COMBO cable only, no batteries)

**FASTPAK and FASTPAK 2 battery:** .6kg (1.3 lbs)

**LIFEPAK NiCd battery:** 0.8kg (1.7 lbs)

**LIFEPAK SLA battery:** 1.3kg (2.8 lbs)

**Standard paddles (hard):** 0.9kg (1.9 lbs)

**Height:** 31.7cm (12.5 in)

**Width:** 38.9cm (15.3 in)

**Depth:** 21.7cm (8.5 in)

**DISPLAY**

**Size (active viewing area):**

**LCD:** 140.8mm (5.5 in) wide x 105.6mm (4.2 in) high

**EL:** 165.1mm (6.5 in) wide x 123.8mm (4.9 in) high

**Resolution:**

640 x 480 black and white LCD

640 x 480 amber and black EL display

User selectable LCD contrast

Displays a minimum of 4 seconds of ECG and alphanumeric for values, device instructions or prompts.

Option to display one or two additional waveforms

**Waveform display sweep speed:** 25mm/sec for ECG and 12.5mm/sec for CO<sub>2</sub>

**DATA MANAGEMENT**

The device captures and stores patient data, events (including waveforms and annotations), user test results and continuous ECG waveform records in internal memory.

The user can select and print reports and transfer the stored information via an internal modem through landline or mobile phones.

**Report Types:** Three format types of CODE SUMMARY™ critical event record (short, medium and long)

- Initial ECG (except short format)
- Automatic capture of vital signs measurements every 5 minutes
- 3-channel or 4-channel 12-lead ECG report
- Continuous waveform records (transfer only)
- Trend Summary – includes patient information, vital signs log and vital signs graphs
- Vital Signs – includes patient information, event and vital signs log.
- Snapshot – includes patient information and 8 seconds of ECG captured at the time of transmission

**Memory Capacity:**

**Two full-capacity patient records that include:**

CODE SUMMARY critical event record – up to 100 single waveform events

Continuous Waveform – 45-minute continuous ECG record

**COMMUNICATIONS**

The device is capable of transferring data records by internal modem, external EIA/TIA modem, cellular modem or serial connection.

Supports EIA/TIA-602 compatible modems using Xon/Xoff or RTS/CTS flow control at 9600 to 38400 bps.

EIA/TIA-RS232E compatible at 9600, 19200, 38400 and 57600 bps.

Group III, Class 2 or 2.0 fax

**MONITOR**

**Voice Prompts:** Used for selected warnings and alarms (configurable on/off).

**ECG**

ECG is monitored via several cable arrangements.

A 3-wire cable is used for 3-lead ECG monitoring.

A 5-wire cable is used for 7-lead monitoring.

A 10-wire cable is used for 12-lead acquisition. When the chest electrodes are removed, the 10-wire cable functions as a 4-wire cable.

Standard paddles or QUIK-COMBO pacing/defibrillation/ECG electrodes or FAST-PATCH® disposable defibrillation/ECG electrodes are used for paddles lead monitoring.

**Lead Selection:** Leads I, II, III. (3-wire ECG cable)

Leads I, II, III, AVR, AVL and AVF acquired simultaneously (4-wire ECG cable)

Leads I, II, III, AVR, AVL, AVF, V1 (Labeled "C" on 5-wire ECG cable)

Leads I, II, III, AVR, AVL, AVF, V1, V2, V3, V4, V5 and V6 acquired simultaneously, (10-wire ECG cable)

**ECG Size:** 4, 3, 2.5, 2, 1.5, 1, 0.5, 0.25 cm/mV (fixed at 1 cm/mV for 12-lead)

**Heart Rate Display:** 20 to 300 bpm digital display

**Out of range indication:** Display symbol "—"

Heart symbol flashes for each QRS detection

**Continuous Patient Surveillance System (CPSS):** In advisory mode while Shock Advisory System is not active, CPSS monitors the patient, via paddles or Lead II ECG, for potentially shockable rhythms.

**Analog ECG output:** TV/mV x 1.0 gain

**Common Mode Rejection:** 90dB at 50/60Hz

**SpO<sub>2</sub>**

**Noninvasive sensors**

**SpO<sub>2</sub> Measurement Range:** 50 to 100%

**SpO<sub>2</sub> Waveform:** IR pleth signal

**SpO<sub>2</sub> Update Rate:** as each pulse is detected

**Calibration Range:** 70 to 100%

**SpO<sub>2</sub> Measurement:** Functional SpO<sub>2</sub> values are displayed and stored

**Pulse Rate:** +/- 3 pulses per minute

Dynamic signal strength bar graph

Pulse tone proportional to value of displayed oxygen saturation

**NIBP**

**Oscillometric measurement**

**Systolic Pressure Range:** 30 to 245mmHg

**Diastolic Pressure Range:** 12 to 210mmHg

Units: mmHg, kPa

**Mean Arterial Pressure Range:** 20 to 225mmHg

**Blood Pressure Accuracy:** maximum mean error of ± 5mmHg with a standard deviation no greater than ± 8mmHg

**Pulse Rate Range:** 30 to 200 pulses per minute

**Pulse Rate Accuracy:** ± 2 pulses per minute or ± 2% whichever is greater

**Typical Measurement Time:** 40 secs

## EtCO<sub>2</sub>

### Microstream™ technology

**Measurement Range:** 0 to 99mmHg

**Display:** CO<sub>2</sub> waveform and EtCO<sub>2</sub> numerics

**Units:** mmHg, kPa, %; user selectable

Automatic ambient pressure compensation

**CO<sub>2</sub> Accuracy (>20 minutes):** 0 to 38mmHg: ± 2mmHg  
39 to 99mmHg: ± 5% of reading + 0.08% for every 1mmHg

**Warm Up Time:** 30 seconds (typical), 180 seconds max

**Response Time:** 2.9 seconds (includes delay time and rise time)

**Respiration Rate Range:** 0 to 60 breaths per minute

**Respiration Rate Accuracy:** 0 to 40 bpm: ± 1 bpm  
41 to 60 bpm: ± 2 bpm

**Invasive Pressure (2 channels)**

**Measurement range:** -30 to +300mmHg in six user selectable ranges

**Display:** IP waveform and numerics

**Units:** mmHg, kPa

**User-selectable labels:** ART, PA, CVP, ICP, LAP

**Transducer type:** Strain-gauge resistive bridge

**Transducer sensitivity:** 5mV/V/mmHg

**Bandwidth:** 0 - 30 Hz (<3dB)

**Numeric accuracy:** ± 1mmHg or 2% of reading, whichever is greater, plus transducer error

**Leakage current:** Meets ANSI/AAMI/IEC requirements

## Trend

**Display:** Choice of HR, SpO<sub>2</sub>(%), EtCO<sub>2</sub>, RR, NIBP, P1, P2, ST shown in channels 2 or 3.

**Time scale:** Auto, 30 minutes, 1, 2, 4 or 8 hours

**Duration:** Up to 8 hours with -06 Memory PCB or later. Reduced storage capacity with earlier versions.

**ST segment:** After initial 12-lead ECG analysis, automatically selects and trends lead with the greatest ST displacement.

## ALARMS

**Quick Set:** Activates alarms for all parameters.

**VF/VT Alarm:** Activates continuous CPSS monitoring in Manual Mode.

**Apnea alarm:** Occurs when 30 seconds have elapsed since last detected respiration.

## INTERPRETIVE ALGORITHMS

**12-lead Interpretive algorithm:** GE Medical 12SL. Includes AMI statements.

## PRINTER

**Prints continuous strip of the displayed patient information**

**Paper Size:** 50mm (2.0 in) or optional 100mm (3.9 in)

**Print Speed:** 25mm/Sec +/- 5% (measured in accordance with AAMI EC-11, 4.2.5.2)

**Delay:** 8 seconds

**Autoprint:** Waveform events print automatically (user configurable)

Optional 50mm/sec timebase for 12-lead ECG reports

## FREQUENCY RESPONSE

**Diagnostic:** 0.05 to 150Hz or 0.05 to 40Hz (user configurable)

**Monitor:** 0.67 to 40Hz or 1 to 30Hz (user configurable)

**Paddles:** 2.5 to 30Hz

**Analog ECG Output:** 0.67 to 32Hz (except 2.5 to 30Hz for Paddles ECG and 1.3 to 23Hz for 1 to 30Hz monitor frequency response)

## DEFIBRILLATOR

**Waveform (Biphasic):** Biphasic truncated exponential with voltage and duration compensation for patient impedance.

**Waveform (Monophasic, Edmark):** Damped sinusoid in shape per AAMI DF2-1989, 3.2.1.5.1

**Energy accuracy:** ±1 joule or 10% of setting, whichever is greater, into 50 ohms.

±1 joule or ±5%, whichever is greater, of 50 ohm value into 25 to 200 ohms.\*

**Paddle Options:** QUIK-COMBO pacing/defibrillation/ECG electrodes (standard)

FAST-PATCH disposable defibrillation/ECG electrodes (optional)

Standard Paddles (optional)

Internal Handles with discharge control (optional)

External Sterilizable Paddles (optional)

**Cable Length:** 2.4m (8 ft) long QUIK-COMBO cable (not including electrode assembly)

## MANUAL

**Energy Select (Monophasic):** 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 50, 70, 100, 150, 200, 300 and 360 joules or user configurable sequence 200/200/360 or 200/300/360 joules

**Energy Select (Biphasic):** 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 30, 50, 70, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, and 360 joules or user configurable sequence 100 to 200, 100 to 300, 100 to 360.

**Charge Time:** Charge time to 360J in less than 10 seconds, typical

**Synchronous Cardioversion:** Energy transfer begins within 60mS of the QRS peak

## ADVISORY

**Shock Advisory System (SAS)** is an ECG analysis system that advises the operator if the algorithm detects a shockable or non-shockable ECG rhythm. SAS acquires ECG via therapy electrodes only.

**Shock Ready Time:** Using a fully charged battery at normal room temperature, the device is ready to shock within 20 seconds if the initial rhythm finding is "Shock Advised."

**Output Energy (Edmark):** User configurable, sequence of 200/200/360 or 200/300/360 joules.

**Output Energy (Biphasic):** User configurable, sequence of three sequential shock levels ranging from 200, 200 to 300, and 200 to 360 joules.

\* Note: ±5% accuracy applies when disposable therapy electrodes are attached. Energy output is limited to the available energy which results in delivery of 360 joules into 50 ohms.

## PACER

**Pacing Mode:** Demand or non-demand  
Rate and current defaults (user configurable)

**Pacing Rate:** 40 to 170ppm

**Rate Accuracy:** +/- 1.5% over entire range

**Output Waveform:** Monophasic, truncated exponential current pulse (20 + 1ms)

**Output Current:** 0 to 200mA

**Pause:** Pacing pulse frequency reduced by a factor of 4 when activated

**Refractory Period:** 200 to 300mS +/- 3% (function of rate)

## ENVIRONMENTAL

**Temperature, Operating:** 0° to 50°C (32° to 122°F)  
SpO<sub>2</sub>: 5° to 45°C (41° to 113°F)

**Temperature, Non-operating:** -20° to +60°C (-4° to 140°F) except therapy electrodes and batteries

**Relative Humidity, Operating:** 5 to 95%, non-condensing

**Atmospheric Pressure, Operating:** Ambient to 429mmHg (0 to 4572m) (0 to 15,000 ft)

**Water Resistance, Operating:** IPX4 (splash proof) per IEC 529 (with batteries and cables installed)

**EMC: Emissions:** MIL-STD-461D, RE101; EN55011, class B, Group 1

**Susceptibility:** MIL-STD-461D, CS114, RS101

**Shock (drop):** Five drops on each side from 18 in. onto a steel surface

**Vibration:** MIL-STD-810E Method 514.4, Propeller Aircraft - category 4, Helicopter - category 6 (3.75g), and Ground Mobile - category 8 (3.14g)

## AC AND DC POWER ADAPTER

### Function

**Dimensions:** 27.7 x 16.8cm (10.9 x 6.6 in)

**Weight:** < 2.3kg (<5 lbs) (including cables)

**Charge Time (with fully depleted battery):** FASTPAK and FASTPAK 2: 1.5 hours

**LIFEPAK NiCd 3009376-00:** 2.1 hours

**LIFEPAK NiCd 3009376-01:** 3.0 hours

**LIFEPAK SLA:** 6 hours typical, 12 hours maximum

**AC Input:** Accepts line power from both:  
90 to 264VAC, 47 to 63Hz (domestic/international)  
108 to 118VAC, 380 to 420Hz (military)

**DC Input:** 9 to 16VDC

**Fuses:** Two 250V fuses (100 to 200V: T5A; 220 to 240V: T2.5A) in the power input module (AC Power Adapter only)

### Environmental

**IPX4 per IEC 529**

**Altitude, Operating:** To 4545m (15,000 ft)

**Altitude, Non-operating:** To 5455m (18,000 ft)

**Humidity:** 5 to 95% non-condensing

**Temperature, Operating:** 0° to 50°C (32° to 122°F)

**Temperature, Storage:** -20° to 65°C (-4° to 150°F) (followed by one hour temperature stabilization in operating temperature range)

**Vibration, Operating and Non-operating:** MIL-STD-810E, Method 514.4 Categories 4, 6, 8

All specifications are at 20°C unless otherwise stated.

## LIFEPAK 12

Defibrillator / Monitor Series

operator when it detects a shockable rhythm with visual and voice prompts. In manual mode, the LIFEPAK 12 defibrillator/monitor series features simple 1-2-3 operation.

Large display allows 1, 2 or 3 ECG channels to be viewed simultaneously, with up to eight seconds of cascading ECG. Heart rate, oxygen saturation and other vital information is clearly visible.

GE Medical's 12SL ECG analysis program offers interpretive 12-lead ECG analysis. The 12SL ECG analysis program provides accuracy with simultaneous acquisition, analysis and interpretation of all 12-leads. 12-lead transmission capabilities give you a head start in diagnosis and treatment of AMI and other conditions. Patient data, including 12-lead ECG reports can be integrated into the GE Medical MUSE CV\* cardiovascular information system.

Pulse oximetry is available with Nellcor C-LOCK ECG synchronization for timing pulse oximetry measurements with ECG signal.

Capnography (EtCO<sub>2</sub>) monitoring is available for use on intubated and nonintubated patients. Superior moisture handling eliminates the need for water traps or additional moisture filters. Innovative Microstream™ technology and FilterLine™ accessories reduces maintenance costs associated with mainstream sensor and cable damage.

Oscillometric noninvasive blood pressure (NIBP) monitoring with proven performance in most ambient noise and motion environments is also available. Automatic measurement modes provide vital sign assessment at intervals appropriate for patient condition.

The AC and DC Power Adapters provide line power as well as battery charging capability. A full line of batteries are available to meet varied usage requirements, with fuel gauge indicators providing visual indication of remaining capacity.



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0465-14-08		
DATA TRANSFER™ SYSTEM SOFTWARE PRODUCTS - DATA TRANSFER SYSTEM		
Price List October 2005		
State of Oklahoma		
CATALOG NUMBER	PRODUCT DESCRIPTION	CONTRACT PRICE
DATA TRANSFER™ SYSTEM SOFTWARE PRODUCTS - DATA TRANSFER SYSTEM products allow for the downloading of device data and transfer of files to a PC or other location.		
21340-000095	<p><b>LIFENET® DT Express Information Management Program</b></p> <p><b>Features:</b> LIFENET DT Express is a PC-based software product that allows LIFEPAK® AEDs to connect directly to a PC and then forward data on to another location. An intuitive, easy to use download wizard is included to speed the user through the download process. Users can download cases, add patient data, save patient data to disk, print event logs, ECG data, and test log reports. Data can then be transferred out via modem to another PC running CODE-STAT™ SUITE data management applications. Waveforms</p> <p><b>System Requirements:</b> Compatible with Microsoft® Windows® 98 SE, Windows ME, Windows 2000 Professional (with Service Pack 1), Windows XP, and Windows NT® Workstation (with Service Pack 6a).</p> <p><b>Languages Supported:</b> Available in English.</p> <p><b>Devices Supported:</b> LIFENET DT Express software is for use with the LIFEPAK CR Plus defibrillator, LIFEPAK 500 defibrillator, and the LIFEPAK 12 defibrillator/monitor.</p> <p><b>Note:</b> A download accessory is required. Please see the "Communications Accessories" section for additional information.</p> <p><b>LIFENET CODE-STAT Suite Data Transfer Plus and DT Express Software License Agreements</b></p> <p><b>Description:</b> For customers who require larger quantities of CSS DT Plus (CODE-STAT Suite Data Transfer Plus) or DTX (Data Transfer Express) applications for a single agency, corporation or site, Medtronic Emergency Response Systems, Inc. provides a corporate or site licensing program. Most likely customers for this type of licensing are pre-hospital agencies and commercial entities. The customer receives a single CD and is licensed to install the application of a given number of computers. The customer signs an agreement before the bid is tendered. There is a pricing matrix based on quantity. A full review of the contract by sales representative with customer is recommended.</p>	269.10
60600-000120	<p><b>CODE-STAT SUITE 5.0 Medical Informatics System - DATA TRANSFER Plus Data Transfer and Storage Program</b></p> <p><b>Application:</b> For downloading and storing device data, printing reports, and sending data to another location. Download data from the LIFEPAK CR Plus, LIFEPAK 500, LIFEPAK 11, LIFEPAK 12, and LIFEPAK 20 defibrillators/monitors. Add supplemental patient and case data. Store, transfer, or print data in a variety of reports.</p>	\$269.10



	<p><b>Features:</b> Supports LIFEPAK CR Plus and LIFEPAK 500 defibrillators, and LIFEPAK 11, 12, and 20 defibrillators/monitors. Case information is downloaded either directly from a device or by modem from a remote site to a PC. Data can be imported and exported via several modes.</p> <p><b>Other Compatible LIFENET Products:</b> LIFENET RS receiving station, QUIK-VIEW™ 500, DATA TRANSFER 500, and DT Express programs.</p> <p><b>Attachments:</b> Add electronic files to patient cases, including pictures, documents, scanned patient care reports and others.</p> <p><b>Onscreen Viewing:</b> Event log includes vital sign information, such as SpO2, heart rate, EtCO2, Invasive Pressure and NIBP values, and a device report list. Waveforms cannot be viewed onscreen.</p> <p><b>Data Entry:</b> Provides the ability to enter a variety of data in the following categories: patient, response, cardiac (Utstein), and outcome. Also allows entry of events and comments.</p> <p><b>Options for Sharing Data/Data Mobility:</b> Print, save, send, and receive cases by e-mail, network, dial-up network, or modem. Simple ways to pass data from remote sites to central database. Merge patient data from multiple devices into one record.</p> <p><b>Printed Reports:</b> Case Report, Continuous ECG Waveform, Summary ECG Waveform, Event Log, and Test Log Report. Provides 12-lead ECG report and also the content of the CODE SUMMARY™ reports from the LIFEPAK 11, 12, and 20 defibrillators/monitors.</p> <p><b>Languages Supported:</b> Available in English, French, Spanish, Swedish, German, Italian, Danish, Dutch, or Norwegian.</p> <p><b>Notes:</b></p> <p><b>Serial Port:</b> Serial port is required to support download of device information from LIFEPAK 11, 12, and 500 defibrillators.</p> <p><b>IrDA Port:</b> An IrDA port or an IrDA adapter is required to support download of device information from the LIFEPAK CR Plus defibrillator and LIFEPAK 20 defibrillator/monitor.</p> <p><b>Modem:</b> Modem required to support receipt of device data from LIFEPAK 11, 12, and 500 defibrillators, or CODE-STAT SUITE system. Modem is also required to support the export of cases from the CODE-STAT SUITE system via modem transmit out.</p> <p><b>LIFENET and LIFEPAK Compatible Products:</b> LIFEPAK CR Plus defibrillator, LIFEPAK 20 defibrillator/monitor (Versions 2.0 and above), LIFENET DT Express Version 1.0 information management system, LIFEPAK 500 automated external defibrillator (Versions 4.0 and higher), LIFEPAK 11 diagnostic cardiac monitor (Versions 2.0 and above), LIFEPAK 12 defibrillator/monitor (Versions 3011371-018 and higher), LIFENET RS receiving station (CODE-STAT SUITE system can only receive from the LIFENET RS receiving station) (3012351-002 Version 1.2), (3012351-003 Version 1.3), (3012351-004 Version 2.0), QUIK-VIEW 500 data review program, DATA TRANSFER 500 information management program. Compatible with CODE-STAT SUITE Versions 3.0 and higher.</p> <p><b>CODE-STAT SUITE system cannot coexist on the same computer with the LIFENET DT Express information management system or LIFENET RS receiving station.</b></p>
	<b>CASE DATABASE AND REVIEW SOFTWARE</b>

60600-000124	<p>These CODE-STAT SUITE Software programs allow the download of device data, onscreen waveform review, and individual case review and storage.</p> <p><b>CODE-STAT SUITE SYSTEM VIEW™</b></p> <p><b>System Review and Database Program</b></p> <p><b>Application:</b> Re-create the incident on a PC with ECG and audio playback. View each emergency case onscreen or through comprehensive reports. Create one seamless patient record by combining data from multiple defibrillators. Also enables comprehensive viewing and analysis of system information. Download and manage data from a system. View and analyze patient data on a system-wide basis. Print a variety of system-wide reports to facilitate business decisions and analysis.</p> <p><b>Features:</b> Supports LIFEPAK CR Plus and LIFEPAK 500 defibrillators, and LIFEPAK 11, 12, and 20 defibrillators/monitors. Case information is downloaded either directly from a device or by modem from a remote site to a PC. Data can be imported and exported via several modes.</p> <p><b>Other Compatible LIFENET Products:</b> LIFENET RS receiving station, QUIK-VIEW™ 500, DATA TRANSFER 500, and DT Express programs.</p> <p><b>Attachments:</b> Add electronic files to patient cases, including pictures, documents, scanned patient care reports, and others.</p> <p><b>Onscreen Viewing:</b> Event log includes vital sign information, such as SpO2, heart rate, EtCO2, Invasive Pressure and NIBP values, and a device report list.</p> <p><b>Data Entry:</b> Provides the ability to enter a variety of data in the following categories: patient, response, cardiac (Utstein), and outcome. Also allows entry of events and comments.</p> <p><b>Options for Sharing Data/Data Mobility:</b> Print, save, send, and receive cases by e-mail, network, dial-up network, or modem. Simple ways to pass data from remote sites to central database. Merge patient data from multiple devices into one record.</p> <p><b>Printed Reports:</b> Case Report, Continuous ECG Waveform, Summary ECG Waveform, Event Log, and Test Log Report. Provides 12-lead ECG report and also the content of the CODE SUMMARY reports from the LIFEPAK 11, 12, and 20 defibrillators/monitors.</p> <p><b>Onscreen Viewing:</b> Viewing of all waveforms including synchronized playback of associated audio and files.</p> <p><b>Reports:</b> Summary of Patient Demographics (from entire database), Summary of Response Data, Cardiac Survival vs. Response Time (graph of survival rates compared to response times), Utstein Cardiac Arrest Reports (flow-chart report).</p>	\$1,349.10
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<b>New Feature:</b>	<p><b>LIFENET Case View:</b> LIFENET Case View is a quick and easy way to view and print out a single case. This new feature is included with SYSTEM VIEW. This tool allows users to view case files without having them imported and contained within a database. The utility uses Windows methods to open, view, and manage files. Users can open a file wherever it appears: from the desktop, attachments in e-mail, or system files. To open a case file, double click on file and it opens in the Case View display. Alternatively, users can open Case View from Startup Programs or icon on the desktop and open a case file using the file open menu.</p> <p><b>Features:</b> • View and print all reports for a single case • Automatic device time adjustment • View attachments Case View does not allow annotation of the file, access to data entry, or adding attachments such as a file or photo.</p> <p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>• Easy to use quick view of a single patient's case for users who want just a quick look or printout</li> </ul> <p><b>System Requirements:</b> Operating systems: Microsoft Windows 98 SE, Windows NT Workstation, Windows 2000 Professional, or Windows XP. Hospital version: A modified database template and data entry tailors your system to a hospital environment.</p> <p><b>Note:</b> No system level reports are available for the hospital version. Individual case reports such as Event Log, Case Report, and Device Reports are available.</p> <p><b>Languages Supported:</b> Available in English, French, Spanish, Swedish, German, Italian, Danish, Dutch, or Norwegian.</p> <p><b>Notes:</b></p> <p><b>Serial Port:</b> Serial port is required to support download of device information from LIFEPAK 11, 12, and 500 defibrillators.</p> <p><b>IrDA Port:</b> An IrDA port or an IrDA adapter is required to support download of device information from the LIFEPAK CR Plus defibrillator and LIFEPAK 20 defibrillator/monitor.</p> <p><b>Modem:</b> Modem required to support receipt of device data from LIFEPAK 11, 12, and 500 defibrillators, or CODE-STAT SUITE system. Modem is also required to support the export of cases from the CODE-STAT SUITE system via modem transmit out.</p> <p><b>LIFENET and LIFEPAK Compatible Products:</b> LIFEPAK CR Plus defibrillator, LIFEPAK 20 defibrillator/monitor (Versions 2.0 and above), LIFENET DT Express Version 1.0 information management system, LIFEPAK 500 automated external defibrillator (Versions 4.0, 4.2, 4.32), LIFEPAK 11 diagnostic cardiac monitor (Versions 2.0 and above), LIFEPAK 12 defibrillator/monitor (Versions 3011371-018 and higher), LIFENET RS receiving station (CODE-STAT SUITE system can only receive from the LIFENET RS receiving station) (3012351-002 Version 1.2), (3012351-003 Version 1.3), (3012351-004 Version 2.0), QUIK-VIEW 500 data review program, DATA TRANSFER 500 information management program. Compatible with CODE-STAT SUITE Versions 3.0 and higher.</p>
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	<b>CODE-STAT SUITE system cannot coexist on the same computer with the LIFENET DT Express information management system or LIFENET RS receiving station.</b>	
<b>60600-000129</b>	<p><b>CODE-STAT SUITE SYSTEM VIEW Client™ System Review and Database Program</b></p> <p><b>Application:</b> Share your SYSTEM VIEW database with others in your organization. Install SYSTEM VIEW Client software on their PCs (users must be in the same networked computer system). Easily and quickly share entire cases and ECG data and communicate with your medical director, administrator, and educators without shuffling paper. Facilitate business discussions and speed decision time. The software has all the same features available in the SYSTEM VIEW program with the exception of device download. There is no provision for downloading from a monitor/defibrillator.</p> <p><b>Features:</b>  Remote access to the database enables additional personnel to review and edit data, and create reports from the main database (users must be on the same network). All features present except download of devices.  <b>Benefits:</b> Client software has all the same features available in the SYSTEM VIEW program. Share case information with medical directors, administrators, and other authorized users.* Multiple users can review and enter data into the database through the SYSTEM VIEW Client software program for remote computers. Install SYSTEM VIEW Client software on their PCs (users must be in the same networked computer system). *Sharing of information should be in accordance with your organization's privacy policies and HIPAA requirements.  <b>System Requirements:</b> Operating systems: Microsoft Windows 98 SE, Windows NT Workstation, Windows 2000 Professional, or Windows XP.  Devices Supported: No provision for device download.</p>	<b>\$359.10</b>
<b>60600-000120</b>	<p><b>CODE-STAT SUITE SOFTWARE UPGRADE OPTIONS</b></p> <p>Allows users to upgrade software from older versions of CODE-STAT SUITE (V3.01, V3.2, and V4.0) to the latest Version.</p> <p><b>DATA TRANSFER Plus UPGRADE LIFENET and LIFEPAK Compatible Products:</b> LIFEPAK CR Plus defibrillator, LIFEPAK 20 defibrillator/monitor (Versions 2.0 and above), LIFENET DT Express Version 1.0 information management system, LIFEPAK 500 automated external defibrillator (Versions 4.0, 4.2, 4.32), LIFEPAK 11 diagnostic cardiac monitor (Versions 2.0 and above), LIFEPAK 12 defibrillator/monitor (Versions 3011371-018, 3011371-019, 3011371-022, 3011371-030, 3011371-062, 3011371-065, 3011371-067, 3011371-070, 3011371-072, and 3011371-095), LIFENET RS receiving station (CODE-STAT SUITE system can receive only from the LIFENET RS receiving station) (3012351-002 Version 1.2), (3012351-003 Version 1.3), (3012351-004 Version 2.0), QUIK-VIEW 500 data review program, DATA TRANSFER 500 information management program. Compatible with CODE-STAT SUITE Versions 3.0 and above.  <b>CODE-STAT SUITE system cannot coexist on the same computer with the LIFENET DT Express information management system or LIFENET RS receiving station.</b></p>	<b>\$89.10</b>

60600-000124	<p><b>SYSTEM VIEW – System Database and Review Upgrade LIFENET and LIFEPAK Compatible Products: LIFEPAK CR Plus</b> defibrillator, LIFEPAK 20 defibrillator/monitor (Versions 2.0 and above), LIFENET DT Express Version 1.0 information management system, LIFEPAK 500 automated external defibrillator (Versions 4.0, 4.2, 4.32), LIFEPAK 11 diagnostic cardiac monitor (Versions 2.0 and above), LIFEPAK 12 defibrillator/monitor (Versions 3011371-018, 3011371-019, 3011371-022, 3011371-030, 3011371-062, 3011371-065, 3011371-067, 3011371-070, 3011371-072, and 3011371-095), LIFENET RS receiving station (CODE-STAT SUITE system can receive only from the LIFENET RS receiving station) (3012351-002 Version 1.2), (3012351-003 Version 1.3), (3012351-004 Version 2.0), QUIK-VIEW 500 data review program, DATA TRANSFER 500 information management program. Compatible with CODE-STAT SUITE Versions 3.0 and above.</p>	\$89.10
60600-000129	<p><b>CODE-STAT SUITE system cannot coexist on the same computer with the LIFENET DT Express information management system or LIFENET RS receiving station.</b></p> <p><b>SYSTEM VIEW Client – System Database and Review Upgrade LIFENET and LIFEPAK Compatible Products: LIFEPAK CR</b> Plus defibrillator, LIFEPAK 20 defibrillator/monitor (Versions 2.0 and above), LIFENET DT Express Version 1.0 information management system, LIFEPAK 500 automated external defibrillator (Versions 4.0, 4.2, 4.32), LIFEPAK 11 diagnostic cardiac monitor (Versions 2.0 and above), LIFEPAK 12 defibrillator/monitor (Versions 3011371-018, 3011371-019, 3011371-022, 3011371-030, 3011371-062, 3011371-065, 3011371-067, 3011371-070, 3011371-072, and 3011371-095), LIFENET RS receiving station (CODE-STAT SUITE system can receive only from the LIFENET RS receiving station) (3012351-002 Version 1.2), (3012351-003 Version 1.3), (3012351-004 Version 2.0), QUIK-VIEW 500 data review program, DATA TRANSFER 500 information management program. Compatible with CODE-STAT SUITE Versions 3.0 and above.</p>	\$99.00
99404-000001 & 94404-000004	<p><b>CODE-STAT SUITE system cannot coexist on the same computer with the LIFENET DT Express information management system or LIFENET RS receiving station.</b></p> <p><b>LIFENET RS RECEIVING STATION WITH MUSE COMPATIBILITY</b> This product option includes all the above product features plus the ability to interface with the GE Marquette MUSE® System (Version 5C). This product will be prepared to interface with the MUSE and transmit 12-lead reports from the LIFEPAK 12 device into the MUSE System. <b>Note:</b> Customers will need to install two analog phone lines in their facility, and have MUSE Version 5C.</p>	\$14,395.50

\*Pricing as stipulated in contract.



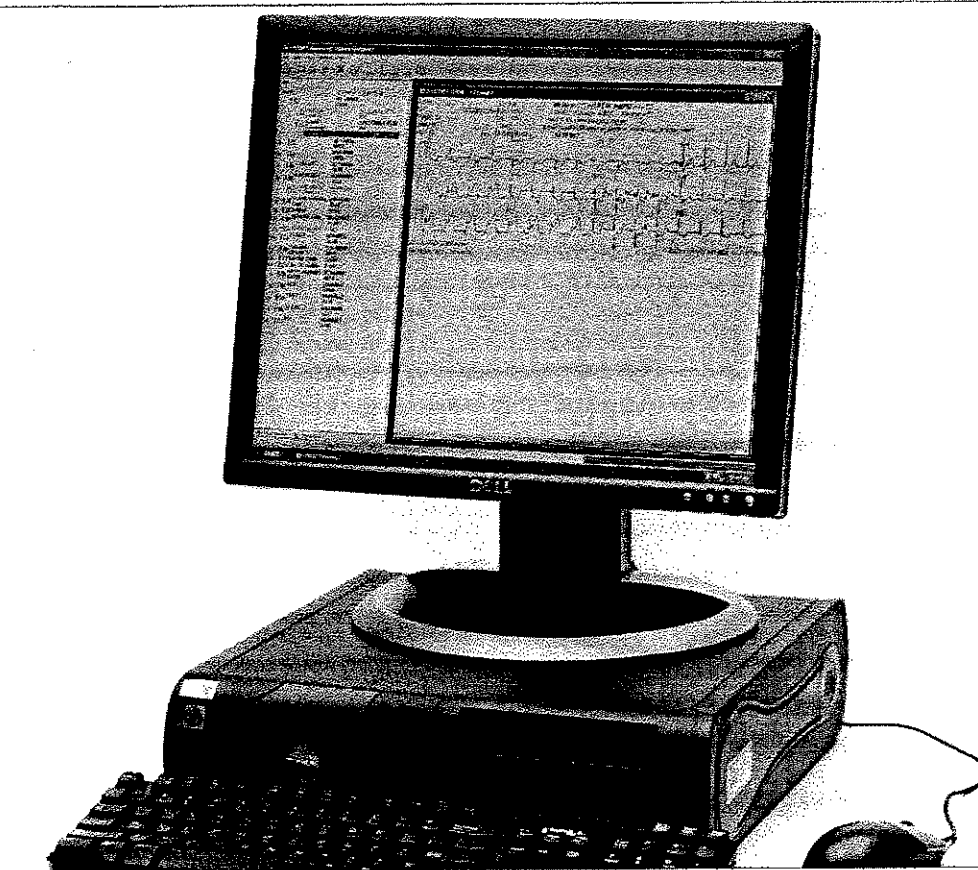
**Medtronic**

*Alleviating Pain • Restoring Health • Extending Life*

0465-14-08

# LIFENET® RS 3.0

## Receiving Station



Aids in reducing time from onset of pain  
to time to treatment

Receives diagnostic quality 12-lead  
ECG reports from the field

Triage patient before ED arrival

Helps hospital teams shorten prep time  
for cardiac catheterization patients

Automatically alerts key decision makers  
via e-mail to cell phone, PC or handheld device

The LIFENET RS Receiving Station works in concert with Medtronic LIFEPAK® 12 defibrillator/monitors to provide diagnostic quality 12-lead ECG reports from the field to the hospital, or appropriate facilities for diagnosis, disposition and treatment decisions.

The LIFENET RS Receiving Station can be configured to automatically transfer patient information including 12-lead ECG reports as a fax or PDF to pre-determined sites. PDF files may be sent via e-mail along with an alternate notification message. This provides patient information to cardiologists and other essential caregivers for triage decisions wherever they are, when they need it. Getting the right information to the right person can save lives.

Features and benefits of the LIFENET RS Receiving Station are described in the following pages.

# LIFENET RS 3.0

Receiving Station

## FEATURES

These features can assist physicians in reducing time from symptom onset to time to treatment:

### REPORTING FEATURES:

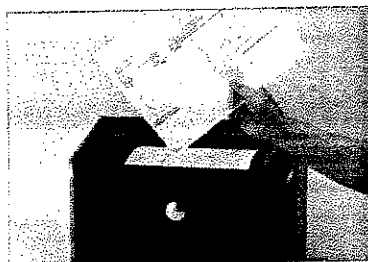
- 12-lead ECG Report—receive patient data directly in the Emergency Department from a LIFEPAK 12 defibrillator/monitor in the field via landline, cellular or satellite phone.



- Trend Summary Report—includes patient information, vital sign values and trending graph.
- Vital Signs Summary Report – includes patient information, event and vital sign logs.
- Snapshot Report – includes patient information and 8 seconds of waveform data captured at the time of transmission.

### DATA MANAGEMENT FEATURES:

- PDF exporter—automatically exports 12-lead ECG and vital signs data in PDF format to cardiologists as well as notifies essential caregivers and key decision makers when patient data is available. The PDF is sent via email to pre-determined devices such as PCs, cell phones and PDAs.
- Auto export—automatically transfers patient information to pre-determined sites. Information may be sent to a cardiologist via fax or email (PDF attachment), another LIFENET RS Receiving Station or CODE-STAT™ Suite medical informatics system.
- Auto forward—allows operator of LIFEPAK 12 defibrillator/monitor to direct reports to pre-determined destinations through the LIFENET RS Receiving Station.
- Auto print—prints out diagnostic quality 12-lead ECG reports for review.



- Auto alarm (audible and visual)—alerts staff to incoming 12-lead ECG and vital signs data and other reports.

### ADDITIONAL FEATURES:

- Optional interfacing—with GEMS MUSE and Infinity MegaCare cardiology management systems. The LIFENET RS Receiving Station can also auto-export and auto-forward patient information to MUSE and MegaCare systems. (Requires network connection between the receiving station and cardiology management system. In addition, it requires purchase of additional software interface from the GEMS MUSE or Infinity MegaCare system to the LIFENET RS Receiving Station.)
- Patient privacy filter—removes identifiable patient information (such as name or address) when exporting records to pre-determined destinations. This can assist you in complying with HIPAA rules regarding the privacy and confidentiality of patient data.
- Security enhancements—allow only users with administrator rights to configure settings.
- Multiple languages available—English, French, Spanish, German, Swedish, Italian, Danish, Norwegian and Dutch.
- Annual Service Contract—provides software and hardware service support solutions.

## BENEFITS

The LIFENET RS Receiving Station provides diagnostic quality 12-lead ECG printed reports to hospitals. The benefits are that cardiologists, decision makers and other essential caregivers can:

- Provide better quality of care for suspected myocardial infarction patients through early recognition.
- Determine the best disposition for the patient, prepare for patient arrival, discuss care options with a cardiologist and prepare the cardiac catheterization laboratory team.
- Monitor, contrast and compare a series of ECGs sent from the field using the ST segment tracking and auto-generate ECG capabilities of the LIFEPAK 12 defibrillator/monitor. This can assist physicians with deciding the appropriate care for patients.
- Receive automatic alerts on handheld devices such as cell phones and PDAs so cardiologists and other essential caregivers and decision makers are forewarned of a 12-lead ECG arriving via PDF—wherever they are, when they need it.
- Potentially save precious time by transporting patients directly to regionalized specialty hospitals for cardiac care.
- Capture patient business through interventional cardiology for their lifetime of cardiovascular care.

## SYSTEM

### SYSTEM FEATURES

- Annual service contract
- Dell computer system with new generation design
- Dell 19 in. flat panel monitor
- Dell laser printer

### SYSTEM REQUIREMENTS

- Two analog phone lines.
- Three power receptacles.
- GEMS MUSE option requires network connection, MUSE Version 5C or higher and software interface to the LIFENET RS Receiving Station.
- Infinity MEGACARE option requires network connection and software interface to the LIFENET RS Receiving Station.
- E-mail features require network connection and external e-mail account.

### COMPATIBLE PRODUCTS

- LIFEPAK 12 defibrillator/monitor (Version 3011371-072 and higher)
- CODE-STAT Suite medical informatics system (Version 4.0 and higher)
- LIFENET RS Receiving Station (Version 2.0 and higher)

### PHYSICAL DIMENSIONS

#### Dell OptiPlex™ CPU:

- Vertical orientation: 4.3 in. wide x 17 in. deep x 15.5 in. high
- Horizontal orientation: 15.5 in. wide x 17 in. deep x 4.3 in. high
- Weight: 21 lbs.

#### Dell flat panel monitor:

- 16.4 in. wide x 8.5 in. deep x 16.5 in.-23 in. high (Height is adjustable.)
- Weight: 15 lbs.

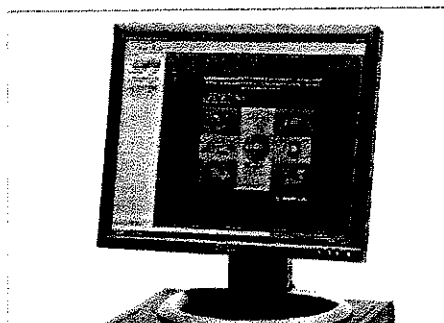
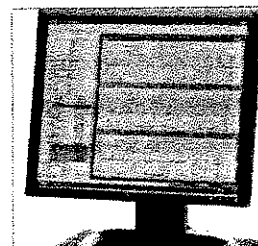
#### Dell laser printer:

- 15.5 in. wide x 14 in. deep x 10 in. high
- Weight: 27 lbs.

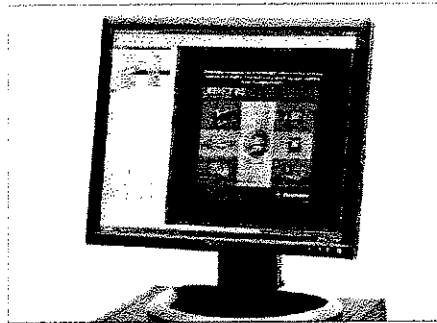
## NEW! PATIENT VIEW

LIFENET RS Receiving Station provides the ability to store baseline ECGs for comparison to acute coronary pre hospital events. This enables physicians to compare and contrast ECGs already on file for the patient with 12-lead ECGs received from the field during a potential cardiac emergency—thus facilitating triage and transport decisions.

By allowing easy transmission of 12-lead ECGs of patients in remote locations or locked facilities—such as military outposts, research stations, cruise ships, rural clinics and correctional institutions—the receiving station aids in transport/no-transport determinations. This helps reduce time to treatment for those who need it and avoids costly transport in cases where immediate treatment is not warranted.



The LIFENET Receiving Station screen border remains blue until incoming 12-lead ECG reports are transmitted from the field.



The LIFENET Receiving Station screen border flashes red (and emits an optional audio notification) alerting staff of incoming 12-lead reports and other vital signs data.



0465-14-09

<b>LIFEPAK® 20 Defibrillator/Monitor Package</b>		
<b>Price List October 2005</b>		
<b>State of Oklahoma</b>		
<b>CATALOG NUMBER</b>	<b>PRODUCT DESCRIPTION</b>	<b>CONTRACT PRICE</b>
70402-000001	LIFEPAK® 20 Defibrillator/Monitor Package	7,195.00
	<b><u>Every unit shipped will include:</u></b>	
	LIFEPAK 20 defibrillator/monitor with BLS/ACLS front door (1 per unit), Active color matrix LCD screen, Manual and AED functionality, Built-in AC power, NiMH rechargeable internal battery, ADAPTIV~ Biphasic, escalating energy up to 360J, Synchronous cardioversion, 3- and 5-wire ECG monitoring with lead select, CODE SUMMARY~ critical event record with data port, Printer	
	<b><u>Each unit also comes with a ship kit that includes:</u></b>	
	A/C power cord (1 per unit) 3-lead ECG cable (1 per unit) QUIK-COMBO~ pacing/defib/ECG electrodes with EDGE REDI-PAK~ preconnect system (1 pair/unit) QUIK-COMBO therapy cable (1 per unit) QUIK-COMBO test plug (1 per unit) LIFE-PATCH® ECG adult electrodes (3 electrodes per pack) (1 pack/unit) ECG printer paper, 50 mm x 30 m (3 rolls per box) (1 box/unit) LIFEPAK 20 defibrillator/monitor operating instructions (1 per unit) LIFEPAK 20 defibrillator/monitor service manual (on CD-ROM) (1 per unit) 2 inservice videos (one for Manual and one for AED) (1 per unit) Warranty card (1 per unit) "Commitment to You" letter (1 per unit)	
70402-000030	LIFEPAK 20 Defibrillator/Monitor with Pacing Package - Every unit shipped will include everything listed above, plus the pacing feature.	8,595.00
70402-000059	LIFEPAK 20 Defibrillator/Monitor with Pacing and SPO2 Package - Every unit shipped will include everything listed above, plus pacing feature, SPO2 feature, one 5P*2 cable (8 foot), and one package of three adult disposable sensors and one pediatric disposable sensor.	9,795.00
21300-005026	IrDA Adapter with USB Port	99.00
21300-005027	IrDA Adapter with 9-Pin Serial Port	66.60
<b>POWER ACCESSORIES</b>		
11141-000068	LIFEPAK 20 NiMH Rechargeable Internal Battery - Rechargeable nickel metal hydride 12-volt battery for use as AC power backup. (One included per unit at no charge.)	119.20
11140-000015	LIFEPAK 20 AC Power Cord - Powers the LIFEPAK 20 device and recharges the NiMH internal battery. One included per unit at no charge.)	50.40
<b>CABLES FOR LIFEPAK DEFIBRILLATORS</b>		
11110-000040	QUIK-COMBO Therapy Cable - For use with LIFEPAK 20 or LIFEPAK 12 defibrillators/monitors. (One included per unit at no charge.)	223.00
11110-000052	FAST-PATCH® Adapter Cable - For use with the QUIK-COMBO therapy cable for the LIFEPAK 20 or LIFEPAK 12 devices.	176.00

11110-000029	3-Lead ECG Cable - Right angle connector. (One included per unit at no charge.)	79.00
11110-000066	5-Wire ECG Cable - Right angle connector, 4 limb wire, plus 1 chest lead, labeled "C" on the device reports.	151.20
11110-000051	Power Adapter Extension Cable for Use with LIFEPAK 12 or LIFEPAK 20 Devices - Optional use with AC power adapter.	60.30
<b>DEFIBRILLATION PADDLES</b>		
11130-000037	LIFEPAK 20 Defibrillator/Monitor Standard Adult Detachable Hard Paddles - 1 pair, for use with LIFEPAK 20 defibrillator/monitor.	380.00
21330-001024	Adult Hard Paddle - Replacement attaches to adult hard paddle assembly P/N 11130-000037.	64.80
11130-000001	LIFEPAK 12 Defibrillator/Monitor Standard Adult Hard Paddles - 1 pair, for use with LIFEPAK 20 or LIFEPAK 12 defibrillators/monitors.	495.00
11132-000005	LIFEPAK 12 Defibrillator/Monitor Posterior Paddle, External, Adult, 1 Each - Slips onto LIFEPAK 12 standard adult apex standard paddle (not for use with LIFEPAK 20 Hard Paddles) or external sterilizable paddle, for use with LIFEPAK 20 device.	278.10
11134-000003	External Sterilizable Paddles - 1 pair, for use with LIFEPAK 20 or LIFEPAK 12 defibrillators/monitors.	504.00
11131-000001	Internal Paddle Handles with Discharge Control - 1 pair, for use with LIFEPAK 20 or LIFEPAK 12 defibrillators/monitors.	603.00
11131-000010	Internal Paddles — 1 inch size - 1 pair, requires Internal Paddle Handles.	215.10
11131-000011	Internal Paddles — 1.5 inch size - 1 pair, requires Internal Paddle Handles.	215.10
11131-000021	Internal Paddles — 1.5 inch size (9 inch shaft length) - 1 pair, requires Internal Paddle Handles.	215.10
11131-000012	Internal Paddles — 2 inch size - 1 pair, requires Internal Paddle Handles.	215.10
11131-000022	Internal Paddles — 2 inch size (8.75 inch shaft length) - 1 pair, requires Internal Paddle Handles.	215.10
11131-000013	Internal Paddles — 2.5 inch size (5.5 inch shaft length) - 1 pair, requires Internal Paddle Handles.	215.10
11131-000019	Internal Paddles — 2.5 inch size (8.5 inch shaft length) - 1 pair, requires Internal Paddle Handles.	215.10
11131-000014	Internal Paddles — 3.5 inch size - 1 pair, requires Internal Paddle Handles.	215.10
11131-000023	Internal Paddles — 3.5 inch size (8 inch shaft length) - 1 pair, requires Internal Paddle Handles.	215.10
<b>SPO2 ACCESSORIES</b>		
11171-000006	Masimo SET® SPO2 Patient Cable — 4 foot	132.30

11171-000008	Masimo SET 5PO2 Patient Cable —8 foot	132.30
11171-000009	Masimo SET 5PO2 Patient Cable —12 foot	142.20
11171-000007	Masimo SET 5PO2 Sensor — Adult Reusable	288.00
11171-000010	Masimo SET 5PO2 Sensor — Pediatric Reusable	288.00
11171-000011	Masimo SET 5PO2 Sensor — Adult Disposable - (1 box of 20 sensors)	270.00
11171-000012	Masimo SET 5PO2 Sensor — Pediatric Disposable - (1 box of 20 sensors)	306.00
11171-000013	Masimo SET SPO2 Sensor — Neonatal (< 10 KG) Disposable - (1 box of 20 sensors)	378.00
<b>COMMUNICATION ACCESSORIES</b>		
11230-000018	Serial Port Cable —6 foot (LIFEPAK 20 Device to PC)	79.20
11230-000019	Transport Configuration Cable —6 foot (LIFEPAK 20 Device to LIFEPAK 20 Device)	86.40
<b>CARRYING CASES</b>		
11260-000018	Basic Carrying Case Includes right and left pouches.	130.50
11260-000019	Shoulder Strap for Basic Carrying Case - Includes mounting brackets and hardware.	88.20
11260-000016	Right Side Accessory Pouch for LIFEPAK 20 Defibrillator/Monitor - Attaches to the LIFEPAK 20 defibrillator/monitor and holds items such as QUIK-COMBO therapy cable, electrodes, and DERMA-JEL®.	36.00
11260-000020	Top Pouch - For additional storage: insert in place of standard paddles	45.00
<b>ADDITIONAL ACCESSORIES</b>		
21330-000996	LIFEPAK 20 Defibrillator/Monitor Docking Station - Attaches to crash cart to lock LIFEPAK 20 device safely in place	76.00
21330-001007	LIFEPAK 20 Defibrillator/Monitor Front Door - With 1-2-3 display and easily detachable. (One included per unit at no charge.)	30.60
11113-000002	QUIK-COMBO Test Plug - For testing of integrity of QUIK-COMBO cable. (One included per unit at no charge.)	14.40
11998-000060	Defibrillator Checker - For hard paddles.	188.00
<b>SUPPLIES</b>		
11240-000013	Box of ECG Printer Paper, 50 mm x 30 m (3 rolls per box)	
	1 to 49 boxes	14.40
	50 or more boxes	11.70
	(One box included per unit with printer at no charge.)	

11120-000001	DERMA-JEL® Electrode Gel - One 4 oz. gel tube for use with hard paddles.	3.60
<b>TRAINING ACCESSORIES</b>		
11201-000001	QUIK-COMBO 3-Lead Patient Simulator - Includes ECG, defibrillation, and pacing simulation.	640.80
11200-000001	QUIK-COMBO 12-Lead Patient Simulator - Includes ECG, defibrillation, pacing, and acute MI simulation. Use with 5-lead ECG feature.	729.90
11110-000011	QUIK-COMBO Training Electrodes Cable (extension wire) - Required to use QUIK-COMBO pacing/defibrillation/ECG training electrodes.	255.60
11103-000001	QUIK-COMBO Pacing/Defibrillation/ECG Training Electrodes - Reusable training electrodes, good for 50 uses.	21.60
11101-000007	Defibrillation/ECG Training Electrodes, Posted	22.50
11110-000085	Defibrillation/ECG Training Electrodes (with extension wire)	164.70
26500-001215	LIFEPAK 20 Defibrillator/Monitor Operating Instructions - One included per unit at no charge.	50.40
26500-001216	LIFEPAK 20 Defibrillator/Monitor Inservice Video — AED Defibrillation - One included per unit at no charge. VHS format.	18.00
26500-001217	LIFEPAK 20 Defibrillator/Monitor Inservice Video — Manual Defibrillation - One included per unit at no charge. VHS format.	18.00
26500-001212	LIFEPAK 20 Defibrillator/Monitor Service Manual on CD-ROM - One included per unit at no charge.	43.20
26500-001213	LIFEPAK 20 Defibrillator/Monitor Service Manual (paper version)	121.50



**Medtronic**

0465-14-09

# LIFEPAK® 20

Defibrillator/Monitor

Simple yet sophisticated  
for responders of many  
skill levels

Highly intuitive for quick,  
effective AED use

Easily converts to  
manual mode

ADAPTIV™ biphasic  
technology adjusts shock  
duration and voltage

Provides optional,  
escalating shocks as  
needed

Compact and lightweight  
for easy carrying and  
versatile use

Superb color graphics  
allow easy viewing from  
many angles

Flexible therapy options  
(See Options below)

Easy to maintain  
and service

## OPTIONS

- Masimo SET®  
Pulse Oximetry
- Noninvasive pacing
- QUIK-COMBO™  
electrodes or  
hard paddles
- Docking station



The world leader in defibrillation technology brings you the LIFEPAK 20 defibrillator/monitor, created especially for hospitals and clinics. Designed with extensive input from clinicians around the world, the 20 is simple yet sophisticated, providing a flexible and effective tool to meet diverse defibrillation needs across settings.

The 20 is highly intuitive, making it easy for infrequent AED-trained responders to quickly understand and use. Our proven Shock Advisory System™ guides the user with voice and visual prompts through each step and simple 1-2-3 operation. With an easy push of a latch, the 20 automatically converts to a manual defibrillator, including waveform displays. In manual mode, all of the advanced tools for CPR become available. The 20 offers

noninvasive pacing, Masimo SET pulse oximetry (SpO<sub>2</sub>), ECG monitoring (3- or 5-lead), and synchronized cardioversion.

Designed for indoor use, the 20 is compact, lightweight, and easy to rush to the scene or use during transport. A convenient, optional docking station enables the device to be firmly attached to the crash cart for safe and rapid transport, or easily released—whatever the situation requires. The docking station swivels, for multiple viewing angles. Superb color graphics, easily viewed from many angles, enable clinicians to clearly see color matched waveforms and values for efficient and informed patient care decisions.

The 20 is equipped with ADAPTIV biphasic technology, which adjusts shock waveform

## GENERAL

The LIFEPAK 20 defibrillator/monitor has seven main operating modes:

**Manual Mode:** Provides a normal operating capability for ALS users. Allows access to manual mode energy selections up to 360J, synchronous cardioversion and pacing. ECG waveform is displayed.

**AED Mode:** Provides a normal operating capability for BLS users. All user features are available except manual defibrillation, synchronous cardioversion, pacing, and access to archived patient records. Provides shock energy defaults up to 360J. User selectable option to display ECG waveforms and/or visual AED prompts.

**Setup Mode:** Allows the operator to configure the device settings.

**Service Mode:** Allows the operator to execute diagnostic tests and calibrations, to display device module software and hardware versions, and to display and print the diagnostic code log.

**Inservice Mode:** Simulated waveforms are available for demonstration purposes. The waveforms consist of short segments of realistic data, which are repeated to form a continuous waveform.

**Archive Mode:** Provides operator the opportunity to access records of previous patients for review, transmission, printing, editing or deletion.

**Auto Test Mode:** Performs daily self tests.

## POWER

The device is an AC line operated device with an internal battery as backup.

**AC Powered:** 90–132 VAC 50/60Hz, 198–264 VAC 50/60 Hz, total power draw less than 75 Watts.

**Internal Battery Backup:** NiMH. Batteries charge while device operates from AC Power.

**Operating Time:** A new fully charged internal backup battery will provide the following prior to shutdown:

	TOTAL	AFTER LOW BATTERY
Monitoring (minutes):	120	5
Monitoring in device without Pulse Oximeter (minutes):	135	5
Defibrillation (360J discharges):	90	3
Monitoring plus pacing (Minutes at 100 ma, 60 ppm):	70	2

**Typical Battery Charge Time:** <2 hours when device is powered off and AC power is applied

**Low Battery Indication and Message:** When the device is unplugged from AC power, it switches to battery. When battery gets low, the battery detection icon is indicated with a low battery message in the status area, and a warning tone occurs.

**Warmstart:** With inadvertent loss of power (<30 seconds) device retains settings.

**Service Indicator:** When error detected

## PHYSICAL CHARACTERISTICS

## Weight:

- Fully featured defibrillator/monitor (pacing and SpO<sub>2</sub>) 5.58 kg (12.3 lbs)
- QUIK-COMBO cable: .20 kg (.43 lbs)
- Standard (hard) paddles: .88 kg (1.95 lbs)

Height: 21.3 cm (8.4 in)

Width: 26.2 cm (10.3 in)

Depth: 26.2 cm (10.3 in)

## DISPLAY

**Size (active viewing area):** 115.18 mm (4.53 in) wide x 86.38 mm (3.4 in) high

**Resolution:** 320 x 240 dot color active LCD.

Displays a minimum of 4 seconds of ECG and alphanumerics for values, device instructions or prompts.

Option to display one additional waveform.

**Waveform display sweep speed:** 25 mm/sec for ECG

## DATA MANAGEMENT

The device can easily print a CODE SUMMARY™ report, including an introduction with patient information and critical event record. The summary report also includes event and vital signs log, and waveforms associated with certain events. The device can print archived patient records and has two data communication ports—Infrared (IrDA) and a direct serial port, which supports a serial data cable.

## COMMUNICATIONS

The device is capable of transferring data records by serial connection:

- EIA/TIA-232E compatible at 9600, 19200, 38400, 57600 and 115200 bps

## MONITOR

## ECG

ECG can be monitored through 3-wire or 5-wire ECG cables.

Standard paddles or therapy electrodes (QUIK-COMBO pacing/defibrillation/ECG electrodes or FAST-PATCH® disposable defibrillation/ECG electrodes) are used for paddles lead monitoring.

Compatible with LIFEPAK 12 ECG and therapy cables.

## Lead Selection:

- Leads I, II and III, (3-wire ECG cable)
- Leads I, II, III, AVR, AVL, and AVF, V (c) acquired simultaneously, (5-wire ECG cable)

**ECG size:** 4, 3, 2.5, 2, 1.5, 1, 0.5, 0.25 cm/mV

**Heart Rate Display:** 20–350 BPM digital display

**Out of Range Indication:** Display symbol “---”

Heart symbol flash for each QRS detection

## Continuous Patient Surveillance System (CPSS):

in AED mode, while Shock Advisory System is not active, CPSS monitors the patient, via QUIK-COMBO paddles or lead II ECG, for potentially shockable rhythms.

**Voice Prompts:** Used for selected warnings and alarms (Configurable On/Off)

**Analog ECG Output:** 1V/mV X 1.0 gain < 30 ms delay

**Common Mode Rejection:** 90db at 50/60 Hz

SpO<sub>2</sub>

## Masimo SET® Sensors

**Saturation Range:** 1 to 100%

**Saturation Accuracy:** (70–100%) (0–69% unspecified)

## Adults/Pediatrics:

- +/- 2 digits (during no motion conditions)
- +/- 3 digits (during motion conditions)

## Neonates:

- +/- 3 digits (during no motion conditions)
- +/- 3 digits (during motion conditions)

Dynamic signal strength bar graph

Pulse tone at the onset of the pleth waveform

**SpO<sub>2</sub> Update Averaging Rate:** User selectable 4, 8, 12 or 16 seconds

**SpO<sub>2</sub> Measurement:** Functional SpO<sub>2</sub> values are displayed and stored

**Pulse Rate Range:** 25 to 240 pulses per minute

**Pulse Rate Accuracy:** (Adults/Pediatrics/Neonates)

- +/- 3 digits (during no motion conditions)
- +/- 5 digits (during motion conditions)

SpO<sub>2</sub> waveform with autogain control

## ALARMS

**Quick Set:** Activates alarms for all parameters

**VF/VT Alarm:** Activates continuous CPSS monitoring in Manual Mode

## PRINTER

Prints continuous strips of the displayed patient information

Paper size: 50 mm (2.0 in)

Print speed: Continuous ECG 25 mm/sec  $\pm$  5% (measured in accordance with AAMI EC-11, 4.2.5.2)

Delay: 8 seconds

Autoprint: Waveform events print automatically (user configurable)

Print Speed for CODE SUMMARY Reports: 25 mm/sec

## FREQUENCY RESPONSE

Diagnostic: 0.05 to 150 Hz or 0.05 to 40 Hz (user configurable)

Monitor: 0.67 to 40 Hz or 1 to 30 Hz (user configurable)

Paddles: 2.5 to 30 Hz

Analog ECG Output: 0.67 to 32 Hz (except 2.5 to 30 Hz for paddles ECG)

## DEFIBRILLATOR

**Waveform:** Biphasic Truncated Exponential. The following specifications apply from 25 to 200 ohms, unless otherwise specified.

**Energy Accuracy:**  $\pm$  1 joule or 10% of setting, whichever is greater, into 50 ohms  $\pm$  2 joule or 15% of setting, whichever is greater, into any impedance from 25–100 ohms.

**Voltage Compensation:** Active when disposable therapy electrodes are attached. Energy output within  $\pm$  5% or  $\pm$  1 joule, whichever is greater, of 50 ohm value, limited to the available energy which results in the delivery of 360 joules into 50 ohms.

Patient Impedance	Phase 1 Duration (ms)		Phase 2 Duration (ms)	
	Min.	Max.	Min.	Max.
25	5.1	6.0	3.4	4.0
50	6.8	7.9	4.5	5.3
100	8.7	10.6	5.8	7.1
125	9.5	11.2	6.3	7.4

## MANUAL

**Energy Select:** 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 30, 50, 70, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325, and 360 joules and user configurable sequence of 100–200, 100–300, 100–360.

### Charge time:

- Charge time to 200J <4 seconds with fully charged battery
- Charge time to 360J <7 seconds with fully charged battery
- Charge time to 360J <10 seconds while not in low battery operations

### Synchronous Cardioversion:

- Energy transfer begins within 60 ms of the QRS peak
- Energy transfer begins within 25 ms of the External Sync Pulse
- External Sync Pulse: 0–5V (TTL Level) Pulse, active High, > 5 ms in duration, no closer than 200 ms apart and no further than 1 second apart

## AED

**Shock Advisory System** is an ECG analysis system that advises the operator if the algorithm detects a shockable or nonshockable ECG rhythm. SAS acquires ECG via therapy electrodes only.

**Shock Ready Time:** Using a fully charged battery at normal room temperature, the device is ready to shock within 16 seconds of power on, if initial rhythm finding is "Shock Advised."

The AED mode of the LIFEPAK 20 defibrillator/monitor is not intended for use on children less than 8 years of age.

### Paddle Options

- QUIK-COMBO pacing/defibrillation/ECG electrodes (standard)
- Standard adult paddles with embedded pediatric paddles (optional)
- Internal handles with discharge control (optional)
- External sterilizable paddles (optional)
- FAST-PATCH disposable defibrillation/ECG electrodes (optional)

**Cable length:** 2.44 meter (8-foot) long QUIK-COMBO cable (not including electrode assembly)

## PACER

**Pacing Mode:** Demand or nondemand  
Rate and current defaults (user configurable)

**Pacing Rate:** 40 to 170 ppm

**Rate Accuracy:**  $\pm$  1.5% over entire range

**Output Waveform:** Monophasic, amplitude stable to  $\pm$  5% relative to leading edge for currents greater than or equal to 40 mA, Duration 20  $\pm$  1 ms, Rise/Fall times  $\leq$  1 ms [10–90% levels]

**Output Current:** 0 to 200 mA

**Pause:** Pacing pulse frequency reduced by a factor of 4 when activated

**Refractory Period:** 200 to 300 ms  $\pm$  3% (function of rate)

## ENVIRONMENTAL

**Temperature, Operating:** 5 to 45° C (41 to 113°F)

**Temperature, Nonoperating:** -20 to +60° C (-4 to +140° F) except therapy electrodes

**Relative Humidity, Operating:** 5 to 95%, noncondensing

**Atmospheric Pressure, Operating:** Ambient to 429 mmHg (0 to 4,572 meters) (0 to 15,000 feet)

**Water Resistance, Operating (without accessories except for ECG Cable and hard paddles):** IPX1 (spillage) per IEC 60601-1 clause 44.6

**Vibration:** MIL-STD-810E Method 514.4, Cat1

**Shock (Drop):** 1 drop on each side from 457.2 mm (18 in.) onto a steel surface

## EMC

**Emissions:** MIL-STD-461D RE101; IEC 60601-1-2 (1993) subclause 36.201.1

**Susceptibility:** MIL-STD-461D CS114, RS101; IEC 60601-1-2 (1993) subclause 36.202

All specifications are at 20° C (68° F) unless otherwise stated.

- duration and voltage based on the patient's impedance level. In AED mode, the device can provide optional, escalating shocks (200–360 joules), depending on the patient's needs. In manual mode, the ALS clinician can give energy shocks according to established protocols.

QUIK-COMBO pacing/defibrillation/ECC electrodes are compatible with the entire LIFEPAK family of products, for standardization and continuity of care. Standard adult paddles with embedded pediatric electrodes, sterilizable adult paddles, and internal paddles provide flexible therapy options for response in various cardiac emergencies. The 20 is easy to maintain and service, comes with a five-year, inhospital warranty, and is equipped with AC power and a backup internal nickel metal hydride (NiMH) battery.

The LIFEPAK 20 defibrillator/monitor extends and enhances the LIFEPAK family of products, providing flexible, compatible and standardized defibrillation solutions for patients across a range of hospital settings.



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Where Life Depends on Medical Technology

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